DOCUMENT RESUME

ED 386 332 RC 020 070

AUTHOR	Halbrook, Steve A., Ed.; Grace, Teddee E., Ed.
TITLE	Increasing Understanding of Public Problems and Policies, 1994. [National Public Policy Education Conference (44th, Boise, Idaho, September 18-21, 1994).]
INSTITUTION	Farm Foundation, Oak Brook, IL.
PUB DATE	Jan 95
NOTE	212p.; For selected individual papers, see RC 020 071-079. For the 1993 proceedings, see ED 373 928.
PUB TYPE	Collected Works - Conference Proceedings (021)
EDRS PRICE	MF01/PC09 Plus Postage.
DESCRIPTORS	Adult Education; *Educational Change; *Educational Finance; Educational Policy; Elementary Secondary Education; Ethics; Extension Education; *Human Capital; Public Affairs Education; *Public Policy; *Rural Development; School Taxes
IDENTIFIERS	*Agricultural Policy; Environmental Issues; Environmental Policy; *Public Policy Education

ABSTRACT

The National Public Policy Education Conference is held annually to improve the policy education efforts of extension workers responsible for public affairs programs. The 1994 conference addressed the following topics: (1) ethical perspectives in public policy education; (2) transition of food and agricultural policy; (3) building human capital--reforming education; (4) environmental policies; (5) local impacts of trade policy; (6) financing K-12 education; and (7) sustainable rural policy. This proceedings contains the following papers: (1) "Balance, Diversity and Ethics in Public Policy Education" (Paul B. Thompson); (2) "The 1995 Farm Bill Environment" (Lynn M. Daft); (3) "Commercial Farmers As 1995 Farm Bill Stakeholders" (Ronald D. Knutson); (4) "Attitudes of Small Farmers As 1995 Farm Bill Stakeholders" (Benny L. Lockett); (5) "Transition in Food and Agricultural Policy: Key Stakeholders--Domestic Consumers" (Jean Kinsey); (6) "Environmental Interests in the 1995 Farm Bill" (Katherine Reichelderfer Smith); (7) "Human Capital: The Issues, Enablers and Blocks in Institutional Change" (Daryl Hobbs); (8) "Improving the School-to-Work Transition" (Stephen F. Hamilton); (9) "Lifelong Learning: The Linchpin of Human Capital Development" (Michael E. Tomlin); (10) "Environmental Policy Issues: Chaos and Confusion" (Laird Noh); (11) "Trends in Environmental Regulation of Agriculture" (Neil D. Hamilton); (12) "Environmental Issues from an Economic Perspective" (Katherine Reichelderfer Smith); (13) "Environmental Issues from a Community Perspective" (Richard Bass); (14) "Local Impacts of International Trade" (Larry Sanders, Mike Woods, Warren Trock, Hal Harris); (15) "The Real Property Tax and K-12 Education" (Neil Meyer); (16) "Financing K-12 Education in Oregon" (Bruce A. Weber); (17) "1994 Michigan School Finance and Property Tax Reform" (Lynn R. Harvey); (18) "Elements of a Sustainable Rural Policy" (Glen C. Pulver); (19) "Developing Collaboration in Rural Policy: Lessons from a State Rural Development Council" (Richard L. Gardner); (20) "Diversity of Rural Places: Texas" (David D. Field); and (21) "Diversity of Rural Places: Idaho" (George Enneking). Includes abstracts, poster/display session topics, and a list of conference participants. (SV)

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Increasing Understanding of Public Problems and Policies

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1994

- Ethical Perspectives in Public Policy Education
- Transition of Food and Agricultural Policy
- Building Human Capital—Reforming Education
- Environmental Policies
- Local Impacts of Trade Policy
- Financing K-12 Education
- Sustainable Rural Policy

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Subjects Discussed at Previous Conferences

1977 Federal Policy Process • U.S. Energy Policy • World Food—U.S. Policy Choices • 1977 Food and Agriculture Legislation • Agent Training and Leadership Development

1978 Food and Nutrition Policy • Policy Options for Small Farms • International Agricultural Trade • The Land-Grant System and Public Policy

1979 Controlling Inflation: Alternative Approaches, Impacts and Implications • Policy Legislative Process

1980 Dispersed vs. Concentrated Agriculture • Ethics of Public Policy • Productivity • Rural Transportation • Energy Policy Issues • Policy Issues and Educational Approaches

1981 Government Programs and Individual Decisions • Public Support of Research and Extension • Agriculture in the 1980s • Methodology of Public Policy Education

1982 Domestic Economic Policy • Federal Government Role in Resource Management • Trade Policy • Financing Government Under Tight Budgets • Food Policy

1983 Economic Transition • Land Ownership Issues and Policy Education Approaches • The U.S. Food and Agricultural System in the International Setting • The Policy Education Process

1984 Federal Deficit • Providing Public Services in an Era of Declining Taxpayer Support • Water Policy • Distribution Issues in Food & Agricultural Policy • Methodology Workshops • Emerging Politics of Food & Agriculture

1985 The Changing Face of America • The Changing Face of Agriculture • Status of 1985 Agricultural and Food Legislation • Tax Policy Revision • Developing Policy Education Programs on Controversial Issues

1986 Balancing the Federal Budget • Effects of Agricultural and Trade Policies on the Competitiveness of U.S. Agriculture • Human Stress and Adjustment in Agriculture • The Food Security Act of 1985 and Public Policy Education for the Future

1987 Socioeconomics of Rural America • Rural Revitalization • U.S. Agriculture in the International Arena • Role of Values, Beliefs and Myths in Establishing Policy • Policy Education and the Policy Process

1988 Policy Choices for Revitalizing Rural America • Priority Issues for a New Farm Bill • Opportunities for Joint Public Policy Education • Emerging Issues in Agricultural and Food Policy • Emerging Resource Issues • International Agricultural Relations

1989 The Global Environment for the U.S. Economy in the 1990s • Family Policy • Rural Development Policy • Public Policy Education • Water Quality Policy

1990 An Evolving Public Policy Education • Safe Food and Water: Risks and Tradeoffs • Balancing Environmental and Social Concerns with Economic Interests in Agriculture • Structural Change in Food Industries and Public Policy Issues • Toward a New Europe

1991 Global Competitiveness, Productivity and Social Impacts • Public Policy Education Methods • Policy for Environment and Economic Development • Rural Resource Development and Work Force Productivity • Political Economy of the Dysfunctional Family

1992 Public Policy Education in the 1990s • Agriculture and Environmental Policymaking: Issues, Actors, Strategies • The Rural Social Infrastructure • Domestic Consequences of Evolving International Trade Policy

1993 The Status of Agriculture and Rural America • An Evolving Public Policy Education • Health Care Reform • Public Issues Education and the NPPEC • Environmental Policy: The Legislative and Regulatory Agenda

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- Sustainable Rural Policy

Increasing Understanding of Public Problems and Policies—1994
Editors: Steve A. Halbrook and Teddee E. Grace
Proofreaders: Toni Purves and Sandy Young
Farm Foundation, Oak Brook, Illinois
January, 1995

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FOREWORD

This publication reports the major discussions of the 44th National Public Policy Education Conference held September 18-21, 1994, in Boise, Idaho. The 150 participants represented most states, the United States Department of Agriculture and other public agencies.

The conference is held to improve the policy education efforts of those extension workers responsible for public affairs programs. In turn, this should help citizens faced with solving local and national problems make more intelligent and responsible decisions.

Specific objectives were: 1) to provide timely and useful information on public issues; 2) to explore different approaches to conducting public policy education programs; and 3) to share ideas and experiences in policy education.

The Farm Foundation financed the instructional staff for, and the transportation of one individual from each extension service to, this conference which is planned in conjunction with the National Public Policy Education Committee. The Foundation also financed publication and distribution of these proceedings which are made available to state and county extension personnel, teachers, students and others interested in increasing understanding of public policy issues.

Charles W. Abdalla, Chairman
National Public Policy
Education Committee

Walter J. Armbruster
Managing Director
Farm Foundation

January, 1995

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Abstracts

ETHICAL PERSPECTIVES IN PUBLIC POLICY EDUCATION

BALANCE, DIVERSITY AND ETHICS IN PUBLIC POLICY EDUCATION

Paul B. Thompson
Texas A&M University

Public policy for agriculture and natural resources needs to change when farming, ranching and the use of natural resources themselves change, but policy also changes to reflect new understandings. The new understandings made possible by agricultural science were the source of changes in farming practice throughout the first two-thirds of the twentieth century. Throughout that period, policies to support the development and adoption of new agricultural technology were supplemented by policies designed to ameliorate some of the harsh social consequences associated with those technological advances. The questions for the present and the future must address the way recent and likely changes in our understanding of agriculture and natural resources will precipitate events in the next century. While it is impossible to say which individuals will be decisive in forming that result, it is beyond dispute that the knowledge, experience and perception of consumer advocates, environmentalists, minorities and representatives of peoples from across the globe will be more influential in the future than in the past. The new understandings that will shape agriculture and policy will not come exclusively from producers, agricultural scientists and the food industry. The new understandings may not presume that expanding production is the primary goal. The new understandings will not be based on agricultural science and may not be based on science at all. It is for this reason that public policy educators face new challenges in balancing the diversity of interests and viewpoints involved with agriculture and natural resource policy.

TRANSITION OF FOOD AND AGRICULTURAL POLICY

THE 1995 FARM BILL ENVIRONMENT

Lynn M. Daft
Abel, Daft and Earley

The 1995 farm bill will be debated in a setting shaped by lessons from the past and needs of the future. As always, coalitions will be

critical. Global markets are at once limiting the reach of domestic policy and underscoring the importance of being competitive. Market-oriented policies are here to stay. Using farm policy to accomplish other objectives should be approached with caution. Features of the current situation that will influence the debate are: continuing budget restraint; a farm economy that is healthy but not making optimal use of its acreage base; a growing need to redefine the nation's export strategy; the opportunity for a more effective linkage of agricultural and environmental agendas; and a policy process that lacks strong direction.

COMMERCIAL FARMERS AS 1995 FARM BILL STAKEHOLDERS

Ronald D. Knutson
Texas A&M University

Some of the major points public policy educators should consider when delivering educational programs for commercial farmers answer the following questions:

- When do farm program benefits become so low farmers decide not to participate in the program?
- How can we most effectively react to the increasing number of economists who act as free market advocates in support of this particular program alternative?
- How does the implementation of the Uruguay Round Agreement (URA) of the General Agreement on Tariffs and Trade (GATT) affect the 1995 farm bill?
- What options exist for commercial farmers reacting to environmentalists in the 1995 farm bill deliberations?
- What bases exist for developing the required coalition to enact the 1995 farm bill?

This paper responds to each of these questions.

ATTITUDES OF SMALL FARMERS AS 1995 FARM BILL STAKEHOLDERS

Benny L. Lockett
Prairie View A&M University

The Cooperative Extension Programs at Prairie View A&M University, Prairie View, Texas, and other 1890 land grant institutions recognize that in order to properly design public issues education programs to meet the needs of small and limited-resource farmers,

they must identify the issues and concerns facing these farmers. Determining the opinions and preferences of small farmers concerning the future of agriculture and food policy as they pertain to the 1995 farm bill is of particular importance to extension educators. To develop an awareness of their opinions and preferences, nine 1890 land grant institutions surveyed 644 small farmers on issues contained in this bill.

TRANSITION IN FOOD AND AGRICULTURAL POLICY: KEY STAKEHOLDERS—DOMESTIC CONSUMERS

Jean Kinsey
University of Minnesota

The transitions in the food and agricultural industry are dictating changes in food and agricultural policy. The making and executing of public policy is largely for the protection of consumers and citizens and their common good. The fundamental goal of providing adequate, safe food at a reasonable price is still valid and needs to be protected. Food assistance has become an income safety net program; many forces converge to cash it out. Food safety, scientific knowledge about nutrition, diet and health, and research capability to assess the changes in industry developed technology continue to be important parts of the policy. In this era, with a transformed food and agricultural industry, specific issues that affect or are affected by consumers can be summarized as: 1) Maintaining efficient food and agricultural production, processing and food distribution in order to maintain an adequate and safe food supply at reasonable prices; 2) Food assistance policy and funding. For poor consumers, it is their livelihood; for non-poor consumers, it is an issue of minimizing tax dollars spent on administration and non-essential payments. It is also an important investment in a productive society; 3) Higher and more consistent standards for food safety will continue to be high profile issues. Consumers will also expect higher and more consistent performance from government policies and regulations; 4) Better scientific information about nutritional content of foods and total diets will continue to be needed; 5) Public research funding will be needed to ensure public ownership of knowledge about how to produce and process food in the future and to assure its quality.

ENVIRONMENTAL INTERESTS IN THE 1995 FARM BILL

Katherine Reichelderfer Smith
Henry A. Wallace Institute for Alternative Agriculture

The backdrop for environmental interests in the 1995 farm bill is characterized by: recognition of tight budget constraints on environ-

mental programs; anticipation of the Conservation Reserve Program's (CRP) expiration; a broadening of environmental concerns; expectations for a dwindling influence of commodity programs on conservation behavior; and a gridlocked Clean Water Act reauthorization process. Issues include: the extension and/or modification of the CRP; implementation of "green payment programs" as a basis for environmentally friendly farm income support; reducing the use and/or environmental and health risks of pesticides; and reformation of research and education policy to focus more directly on sustainable technologies.

BUILDING HUMAN CAPITAL—REFORMING EDUCATION

HUMAN CAPITAL: THE ISSUES, ENABLERS AND BLOCKS IN INSTITUTIONAL CHANGE

Daryl Hobbs
University of Missouri

The past decade has produced almost unprecedented rates of job growth and improvements in adult education attainment. Yet, during the same decade those trends were joined by substantial increases in the number of children living below the poverty line and declining real income for a majority of families despite an increased number of generally better-educated workers per family. It appears that stable or stagnant rates of productivity growth and declining real income for many workers must be the result of less effective investments in knowledge, physical and human capital. This paper focuses on several possible explanations: 1) a kind of job growth that is producing disincentives for a significant number of individuals and families to invest in human capital; 2) an excessively narrow public and political definition of human capital and, therefore, less-than-optimal human capital investments; and 3) the absence of a mutually reinforicng "mix" of institutions (policies) that would provide greater incentives for public and private human capital investments and produce a greater return on investments made.

IMPROVING THE SCHOOL-TO-WORK TRANSITION

Stephen F. Hamilton
Cornell University

The Youth Apprenticeship Demonstration Project places young people, beginning in their junior year of high school, in work sites for ten to twenty hours per week in order to teach them both specific

work skills and broad personal and social skills. Work experience is carefully planned and supervised and coordinated with school classes. its purpose is to help young people who do not expect to enroll in four-year colleges ("The Forgotten Half") identify career paths that will orient them toward academic achievement and socially responsible behavior. Now in its fourth year of operation, the project is directed by the Cornell Youth and Work Program with a base in Broome County Cooperative Extension.

LIFELONG LEARNING—THE LINCHPIN OF HUMAN CAPITAL DEVELOPMENT

Michael E. Tomlin
University of Idaho

In a rapidly changing global environment, the one reform still missing from the American system of schooling is an intertwined thread of *lifelong learning.* Many reforms have been tried, and some proved successful, but without the "linchpin" of a constant attitude for learning permeating the entire community, schooling will continue to be separate boxes to be filled and set aside. It is possible and imperative for America to adopt this new attitude if it is to continue to thrive through its people.

ENVIRONMENTAL POLICIES

ENVIRONMENTAL ISSUES: CHAOS AND CONFUSION

Laird Noh
Idaho State Senate

Massive new policy initiatives and legal actions, many involving the Endangered Species Act and the Federal Clean Water Act, have created great alarm and confusion among public and private agricultural and natural resource managers. Communication has broken down between interested and affected parties. Normal, necessary public resource management has had to yield to new and confusing demands and crises. Fresh political and environmental leadership will be required to restore order. There will be a great need for informed, creditable professionals with strong communications skills to bring the warring factions back together and restore responsible management and policy.

TRENDS IN ENVIRONMENTAL REGULATION OF AGRICULTURE

Neil D. Hamilton
Drake University Law School

Environmental law and regulation will play an increasingly important role in shaping the future of U.S. agriculture. This article identifies ten significant trends concerning environmental regulation and discusses their impact including: increasing public attention to agriculture's impact on the environment; increased scrutiny of livestock production and pressure for local regulation of large-scale facilities; the trend toward reliance on farm level planning to develop site-specific approaches; the potential for increased use of citizen suits and criminal provisions; and the debate over "property rights" in an agricultural context and how this relates to use of alternatives such as conservation easements.

ENVIRONMENTAL ISSUES FROM AN ECONOMIC PERSPECTIVE

Katherine Reichelderfer Smith
Henry A. Wallace Institute for Alternative Agriculture

The future is likely to bring both a reduction in the availability of public funds for programs that subsidize producers for actions that protect the environment and a rise in environmental regulation, especially at the state level, that will increase some producers' costs. Overlaying the trend toward agricultural industrialization on trends in public environmental protection affecting agriculture suggests the possibility that agricultural production, and any associated environmental problems, may increasingly concentrate in environmentally regressive states. Whether this future scenario is realized depends upon the form that intergovernmental relations take with regard to the allocation of public resources to agroenvironmental protection.

ENVIRONMENTAL ISSUES FROM A COMMUNITY PERSPECTIVE

Richard Bass
Owyhee (Idaho) County Commission

Owyhee County is the second largest county in Idaho. Only 17 percent of the total land is private and lies along the Snake River and creek bottoms scattered throughout the desert. Sixty-one percent of the county's 39,500 cattle (24,095) depend on federal grazing land.

There are one hundred eight families that have federal grazing permits. Beef cattle account for 55 percent of the total agricultural income in Owyhee County. The total county budget is $4.5 million for 8,500 people. The biggest problem is the Bureau of Land Management's reluctance to follow laws passed down from Congress concerning coordination. The board of county commissioners requests no more from the federal management agencies than what is required by federal laws governing their management. This is the difference between the Owyhee County plan and other so-called county plans or county ordinances that try to dictate to the federal government.

LOCAL IMPACTS OF TRADE POLICY

LOCAL IMPACTS OF INTERNATIONAL TRADE

Larry Sanders and Mike Woods
Oklahoma State University

Warren Trock
Colorado State University

Hal Harris
Clemson University

The global economy has been evolving at an increased pace over the past two decades. The institutional support sector is only beginning to understand and respond to the resulting changes. Community impacts, structural change and technological innovation are but a few of the factors under review. While some fifty companies do about 80 percent of U.S. export business, the amount of export activity by smaller businesses has grown rapidly in actual and proportional numbers. Opportunities for value-added exports are among the fastest growing in the market and small business is particularly suited to that market. This paper provides an overview and discussion of the keys to identifying and understanding local impacts of international trade.

FINANCING K-12 EDUCATION

THE REAL PROPERTY TAX AND K-12 EDUCATION

Neil Meyer
University of Idaho

Of all general state and local government expenditures, more than one third goes to elementary and secondary schools. These costs have increased significantly and quickly in the past ten years. The responsibility for paying for them falls to local governments and property taxes are their primary source of revenue. This paper defines and explains the real property tax, discusses preferential assessments favoring farmland, the existing regressivity of effective real property tax rates in the United States and ways to improve the real property tax.

FINANCING K-12 EDUCATION IN OREGON

Bruce A. Weber
Oregon State University

Oregon has instituted ambitious outcome-based educational requirements and Certificates of Mastery for secondary schools while its Measure 5 is cutting school property taxes in half and shifting school funding to the state general fund. At the same time, interdistrict disparities in school spending are being cut in half by a new school funding formula and the number of school districts is being reduced by 40 percent. Oregon voters and the 1995 legislature face balancing funding for state services (human services, public safety, higher education) against funding for educational reform and interdistrict equalization as the state's tax burden shrinks from its current 11.5 percent to 10.3 percent of personal income.

1994 MICHIGAN SCHOOL FINANCE AND PROPERTY TAX REFORM

Lynn R. Harvey
Michigan State University

Action by the Michigan legislature in December, 1993, and statewide voter approval of an amendment to the state's constitution in March, 1994, resulted in an non-marginal change to the method of fi-

nancing K-12 education in the state. The combination of adopting new state statutes and the constitutional amendment resulted in a reduction of property taxes, an increase in the tax rate of selected state taxes, the adoption of new state taxes including a statewide property tax on all property, and a change in the incidence of taxation. Additionally, the school reform measure changed the method of distributing school aid in an attempt to reduce the per pupil funding support between school districts. Legislative action addressed school quality improvement issues by authorizing the creation of charter schools, mandated a state curriculum, lengthened the school year, altered the distribution of aid to support adult education and recommended changes to improve the safety and security in the classroom.

SUSTAINABLE RURAL POLICY

ELEMENTS OF A SUSTAINABLE RURAL POLICY

Glen C. Pulver
University of Wisconsin, Retired

The crafting of a national policy addressing the contemporary concerns of rural America is a challenging task. Rural America has changed a great deal in recent years. To be sustainable, a new rural policy must be flexible enough to accommodate continuing changes in global structure; sufficiently targeted to address the unique concerns found in diverse rural situations; provide for long-run growth in human living standards through natural resource management, technological innovation and institutional change; and attract political support from both rural and urban residents. This will require more active participation and cooperation in policy formulation by citizens of the wider rural community; increased interaction between rural and urban policymakers; and more holistic consideration of investments in production, ecological and institutional innovation.

DEVELOPING COLLABORATION IN RURAL POLICY: LESSONS FROM A STATE RURAL DEVELOPMENT COUNCIL

Richard Gardner
State of Idaho

In forty states, rural development councils are building intergovernmental, public-private networks. Working across agency lines

to serve local customers requires a different way of doing business. The roadblocks to and rewards of collaboration encountered by the Idaho Rural Development Council are described. Differing paradigms of community development and the value of social capital are two of ten lessons learned.

DIVERSITY OF RURAL PLACES—TEXAS

David D. Field
Dallam County Texas

Texas agriculture and rural communities have experienced considerable stress over the past decade as a result of the crises in agriculture and oil in the mid-1980s and federal mandates such as new EPA landfill standards. Community leaders are beginning to recognize that the future of rural business and agriculture are intertwined. Challenges, such as providing effective rural education and adequate health care delivery in rural areas, must be addressed collectively even when in conflict with the generally independent nature of rural people. The town of Dalhart, Texas, began addressing these issues through a series of public meetings that began in 1988 with the help of the Texas Agriculture Extension Service and a grant from the W.K. Kellogg Foundation and soon established what the most critical rural development policy issues were and developed economic growth strategies in response. Since no single town or local government entity could financially support any approach on a grand scale, the number one priority was to take control of economic geography by improving local governmental efficiency. To do so required working together through joint planning meetings and avoiding "turf" battles.

DIVERSITY OF RURAL PLACES—IDAHO

George Enneking
Idaho County, Idaho

Idaho County, Idaho, is a 5.5-million-acre rural area of which 4.5 million acres are public lands. The economy of the county is sustained by timber, agriculture and recreation. This paper shows how federal rules and regulations affect all phases of county economic activity and local government, especially in public-land-dependent counties and offers some possible solutions.

Ethical Perspectives

BALANCE, DIVERSITY AND ETHICS IN PUBLIC POLICY EDUCATION

Paul B. Thompson
Texas A&M University

Public policy for agriculture and natural resources needs to change when farming, ranching and the use of natural resources themselves change, but policy also changes to reflect new understandings. The new understandings made possible by agricultural science were the source of changes in farming practice throughout the first two-thirds of the twentieth century. Throughout that period, policies to support the development and adoption of new agricultural technology were supplemented by policies designed to ameliorate some of the harsh social consequences associated with those technological advances. Perhaps these ameliorative policies did more harm than good, but that is not at issue here. Debating the success or failure of conventional commodity policies will soon be an academic exercise for economic historians. There is also a lesson to be learned in the fact that yesterday's policy supplements and ameliorative fixes came to be identified as the primary elements of agricultural policy for several decades, but that, too, is a subject for history.

The questions for the present and the future must address the way recent and likely changes in our understanding of agriculture and natural resources will precipitate events in the next century. By "our understanding," I mean the collective result of many individuals' knowledge, experience and perception. While it is impossible to say which individuals will be decisive in forming that result, it is beyond dispute that the knowledge, experience and perception of consumer advocates, environmentalists, minorities and representatives of peoples from across the globe will be more influential in the future than in the past. The new understandings that will shape agriculture and policy will not come exclusively from producers, agricultural scientists and the food industry. The new understandings may not presume that expanding production is the primary goal, with unwanted side effects of expansion to be ameliorated by softening the blows. The new understandings will not be based on agricultural science and may not be based on science at all. It is for this reason that public policy educators face new challenges in balancing the diversity of interests and viewpoints involved with agriculture and natural resource policy.

Why Should Policy Educators Strive to Incorporate More Diverse Views?

Before taking up the challenge of new understandings, however, it is relevant to ask, "Why bother?" There are two basic reasons. One relates to ethics, the other to interests. The ethics answer is that democracy presupposes, and the U.S. Constitution and Bill of Rights guarantee, that every citizen is entitled to an opinion on any issue, and that they may attempt to influence the political process to achieve a result consistent with that opinion. Of course there are legal and ethical restrictions on the means of influence that may be employed. Bribery, extortion and blackmail are frowned upon, but even these restrictions are intended to promote free and uninhibited debate over policy options as the primary means for arriving at consensus on public policy, and for establishing the majority party's rationale for policy choice when consensus is unavailable. While the ideal of public debate may be partially fulfilled on most occasions, and severely frustrated on some, it nevertheless establishes the presumptive norm for political decision making in a republic.

Educators who wish to further the cause of democracy are obliged to encourage public debate between opposing parties. They should do so by advising individuals and groups when their interests are likely to be affected by a policy change, and by faithfully representing the arguments, goals and viewpoints of those individuals and groups who adopt opposing positions. They may also encourage debate by analyzing and explaining the arguments that are advanced in public debate, thereby improving the clarity and quality of public deliberation (Campbell). This, in my view, is what balance and diversity in public policy amounts to. Diversity is presumed; representing the diversity of interests and values should be controversial only when democracy itself is challenged. While some have opposed the democratic ethic, surely this is one ethical tenet that may be taken for granted in the present context.

It is also in everyone's interest that these new understandings be accurately reported and analyzed in research and education on agriculture and natural resource policy. New understandings might, after all, produce innovations that help producers, input suppliers, and the food industry better achieve their goals; but even if they do not, and even if the new viewpoints frustrate and delay the pursuit of traditional goals, it will be important to understand the new political culture of agriculture and natural resource policy. It is only common sense to recognize the value of accurate information about one's potential antagonists. Yet individuals and groups within the agricultural sector have engaged in repeated and extended exercises in obfuscation on several key issues. They have repudiated those who would attempt truly representative public policy education, and have rejected opportunities for dialog with opposing interests. Understanding the sources and motivations of these tactics is one key to

including more diversity in public policy education. Some of it is willfull, but much of it is well-intentioned. The obscurantists may regard themselves as acting in agriculture's interests, but the result has been self-deception and the persistence of a false, one-sided picture of the political and economic environment in which the fate of agriculture, natural resources and the food industry will be decided.

One egregious example of this self-destructive activity occurs with respect to animal welfare. Scientists, commodity groups and industry representatives have derided and mocked those who have sought to raise the political profile of this issue, or to promote research on welfare indicators and their measurement. Publications, speeches and informal communications have frightened producers with a caricature that portrays the animal advocate as a wigged-out, ultra-liberal bent on replacing Christian values with anti-American socialist vegetarianism, and prepared to perform heinous and unspeakable acts in order to harm the reputation, property and person of unsuspecting family farmers. This picture is not, of course, a total fabrication. It is easy enough to find animal advocates that exhibit some of these characteristics, and some published tracts of the animal rights movement portray animal producers in barely more favorable terms. (In the interest of future harmony, documentation of names and citations on both sides of this controversy can be spared).

Yet the middle ground here is obviously large and growing. We do not need surveys to recognize this trend. Anyone who visits urban centers such as New York, Vancouver, Chicago, Los Angeles or Houston has seen the gradual proliferation of restaurants advertising humanely raised animal foods on their menus. Judging from the style and price of these establishments, they are not frequented by young hippie Communists, and the prominence of beef, pork and veal among their entrees proves that they are not catering to vegetarians. Anyone who has traveled in Northern Europe knows that concern for the welfare of food animals is both authentic and broadly based. Anyone with school aged children must surely have observed the allure of vegetarian diets that fascinates many girls in their pre-teen years. So-called vegetarianism is itself a more complex phenomenon than is generally recognized, with many self-professed vegetarians allowing themselves regular and frequent consumption of animal products, including meat. The spectrum of attitudes on welfare and vegetarianism is broad and finely articulated. Why animal producers and the animal science community would wish to position themselves at one of the extreme ends of the spectrum, and at odds with the majority of their customers, defies rational explanation.

Lest I be misunderstood, let me underline the key point. I am not advocating animal welfare policies. I am not a vegetarian. I am not claiming that there is now or ever will be a large economic demand for so-called "humanely produced," meats, eggs and other animal

products. I am not predicting that animal welfare concerns will be an important source of new understandings for agriculture and natural resource policy. I have brought up the issue to make the point that agricultural producers, researchers and public policy educators have promoted an understanding of the animal welfare debate that is patently false, and that precludes not only the formation of consensus policies, but also exploitation of such economic opportunities as do exist. It is the self-deception and isolation that I wish to emphasize, and to note that it can hardly be in the interests of agricultural producers to persist in it. Self-deception also occurs, though less dramatically, on issues relating to food safety, nutrition, environmental health, preservation of natural areas, protection of wildlife, and even rural development.

Do We Need a New Approach for Policy Education?

It is nevertheless possible to accept both a commitment to democratic participation in the political process and the idea that everyone's interests would be served by accurate information on the various viewpoints, yet to question the need for public policy educators to undertake new efforts at incorporating diverse viewpoints. I think that well-intentioned people arrive at a negative assessment of the need for balance in two ways. First, if one felt that the new voices attempting to influence agriculture and natural resource policy did not represent legitimate interests, one might oppose all attempts to represent or publicize their opinions. Such a view demands loyalty to the traditional groups that have shaped agriculture and natural resource policy. Second, public policy analysts may feel that current practices are already balanced, and that the call for a new approach is really an attempt to introduce bias favoring minority views. I will rebut both views.

The first or loyalist viewpoint involves logical fallacies that will not be committed by clear thinkers. Many people whose roots lie in traditional agricultural communities may share the view that new groups demanding a seat at the table for negotiating agricultural policy are interlopers, sticking their noses in where they do not belong. There are some persuasive (if not compelling) arguments for this view. Historically, both agricultural policies and industrial policies alike have been thought the special preserve of producer interests. The idea that important public interests in environmental quality and consumer health are at stake in these matters is thus relatively new, and needs defense. Nevertheless, most people also understand that the matter of who does and does not have legitimate claims is itself always a key policy question. As such, when one takes the view that new environmental and consumer groups have no place at agriculture and natural resource policy round tables, one is taking an advocacy position in favor of one policy and against another. It may be appropriate for a partisan to express this view, but it is something else entirely when policy analysts and educators adopt it.

Educators cannot ignore environmental, consumer and other new voices without compromising their ethical obligation to promote nonpartisan objectivity, but the interest argument also weighs in against even partisan or loyalist reasons for attempting to silence the expression of new understandings. As noted already, educators do a disservice to agricultural producers and rural communities when they fail to provide the traditional groups with accurate information about policy proposals and viewpoints that are advocated by new voices. The loyalty test that some have attempted to impose upon policy educators is ultimately self defeating. Shooting the messenger seldom proves to be in one's long-term strategic interest, however satisfying and justified it may seem in the heat of the moment.

The second reason to reject any need for new efforts to incorporate diverse new understandings in policy education derives from the view that policy problems are well understood, that existing approaches to policy analysis and education are adequate, and that only technical models and data are needed. The belief that existing approaches are balanced both reinforces and is reinforced by agricultural loyalties, but it is grounded in the traditions of science. It is a belief that is founded on the methodological presuppositions of some predominant approaches to policy analysis. Critical evaluation of the commitment to technical models and data therefore requires a theoretical detour.

Policy Choice: The Prevailing View

Objectivity in policy education has been understood in deceptively simple terms. The policy researcher predicts the consequences or impact of policy options; the policy educator reports the results of this research. Objective policy education is equated with unbiased reporting of expected consequences, conditioned by an estimate of their likelihood when necessary. Individuals are then thought to apply their own scale of values to rank the desirability of these outcomes. Decision makers implement the policy option that is expected to produce expected outcomes that are, in their judgment, most consistent with the public good, or at least with the values of the constituency they represent. On this view, a change in policy is important because it produces consequences. It is the outcome or end state produced by policy change that is of interest to decision makers and affected parties. Choice is an admittedly value-laden and subjective process, but policy analysis and education can be objective to the extent that they confine themselves to the prediction and description of the end state that will be produced by any proposal for policy change.

Several complications in the research side of this picture have been noted with rising frequency. Most importantly, the decision about which options to model requires subjective judgment. A policy analyst wishing to discredit a particular option can do so by model-

ing an extreme version of it, so as to produce a projection of consequences that is as unrealistic as it is unacceptable. What is more, models should not be used for policy education until they are confirmed, but subjecting them to confirmation requires data, and data are often incomplete, absent and difficult to procure. The representation of probability, risk and uncertainty is tricky, and one can skew predictions by selecting the most favorable estimates in a range of probabilities. The process of modeling is itself open to methodological disputes and corrections, as analysts debate the completeness of ecological models, the inclusion of externalities, and the validity of non-behavioral data such as contingent valuation. These important considerations provide a basis for evaluating the objectivity of policy research, but they do not challenge the idea that balanced policy education consists solely in reporting predictions.

In research, the tools of science are used to model both the natural and the social world, then future states of the world can be predicted. The prevailing view of choice contends that value is represented by the preference rankings that individuals assign to these future states of the world, and that actual behavior reflects an individual's selection of the option that (subject to qualification by probability and risk) has the most preferred consequences. One especially influential interpretation of choice evaluates consequences in terms of their impact on personal welfare. This utilitarian view of choice often assumes further that individuals are sovereign judges of their own utility, an assumption thought to preclude interpersonal comparisons of utility, which, in turn, deprives the analyst of any non-arbitrary way to assess the relative goodness or badness of end states. Each person has sole sovereign authority for judging the utility of an end state, but their judgments are entirely self-referring, or subjective. Judgments of value are thought to be wholly private, non-observable reactions to projected end states. Policy research also assumes that individuals will make the trades needed to arrive at an end state distribution of goods and services, given initial constraints set by the distribution of resources and the rules for exchange. If policy redistributes the resources or changes the rules, economic behavior will bring about a different end state. Models and data allow the researcher to predict economic behavior and its corresponding end state.

These methodological assumptions adopted for policy research carry over into education. As new understandings percolate through the populace, people may assess the value of predicted end states in ways that differ from past assessments, but such changes in viewpoint are thought to be unobservable. They are, as it were, in the heads of people, therefore out of sight. Since there is thought to be no method for objective research on these new understandings or values, any attempt to educate about new understandings seems tenuous and lacking a basis in science. Since there is thought to be no meaningful way to compare or rank one person's judgment

against another, the best that an objective policy educator can do is to inform others how policy options match up with predicted end states. The prevailing view of policy education presumes that whatever understandings or values are brought to the assessment of policy, it is predicted end states that are being assessed. People with different worldviews will value end states differently, but an objective policy educator can and should say nothing about these differences, except in so far as they are revealed in measurable economic behavior.

The Prevailing View: A Criticism

The latent behavioralism in the prevailing view of choice may be methodologically justified in many social science contexts. It is, for example, often important to ignore verbal reports of motivation for action when attempting to measure social or economic causality. Methodological rules may require the scientist to treat the reasons people give to support, justify or otherwise explain their judgments and actions as unobservable, but they can be readily observed in real life. Reasons form part of the language and culture of society. They help people cooperate, and they help individuals understand themselves and the world with which they must cope. To the extent that public policy is a joint coping activity, it would seem prudent to emphasize the sharing of reasons at least as much as one emphasizes the analysis of causes.

Individuals indeed make choices, but they do so against a backdrop of meanings and practices that is socially constructed, reproduced and maintained. Real people are not isolated, sovereign individuals emitting spontaneous and disconnected emotional reactions to predicted end states. Real people recognize the difference between meaningful choice and mindless response. Real people engage the world as members of a culture that has a shared history and linguistic community. History and language will shape not only a person's utility, but also the shape and contour of what is perceived as an option. Real people even change their minds. Ordinary language provides many tools for explaining and comparing relative values and real people routinely avail themselves of these tools as aids to choice. These are commonplace observations, but they are both overlooked and repressed by social scientists whose theoretical ambitions make them forget the broader world in which policy decisions must actually be made.

An alternative ideal of objectivity stipulates that an analysis is balanced when each of the diverse viewpoints has been fairly represented. This is the idea of balance and diversity implied above when I said that policy educators should faithfully represent the arguments, goals and viewpoints of those who adopt opposing positions. This is not to say, however, that policy educators should revert to mere journalism. To do so would be to neglect the substantial addi-

tion that research (including models and data) can make to our collective understanding of policy issues. Policy education should be grounded on research, but research must be broadened to include discovery and analysis of the arguments, goals and viewpoints held and advanced by a more diverse sector of the population.

Policy Choice: The SSCP Model

One of the more powerful adaptations of the prevailing view relies upon the so-called public choice school of policy analysis. Allen Schmid and James Shaffer (Shaffer et al.) have adapted industrial organization theory into a framework for public choice. The Schmid/Shaffer theory analyzes policies in terms of situation, structure, conduct and performance (SSCP). Situation refers to the facts of nature, or the determinants of choice that cannot be modified through policy change. Structure refers to the rights, distribution of resources, norms and other rules that, together with the facts of nature, collectively determine the opportunity sets of interacting parties. Conduct is what people do given the circumstances of situation and structure. Schmid and Shaffer understand conduct as the self-interested optimizing that leads people to satisfy their preferences (understood as end states). Conduct links situation and structure to the end state, and is, in the traditional view, what economic and social theory is predominantly about. Performance might be any evaluation of policy, but the overwhelming tendency has been to equate performance with end state evaluation, just as it is done in the prevailing view. Consistent with the prevailing view of objectivity, situation, structure, conduct and performance would be used to analyze policy, but it is performance, understood as predicted end states, that will be reported by the "objective" policy educator, so that each person may decide for themselves which policy they prefer.

Schmid has used this framework to produce insightful analyses of the way people not only optimize performance from among the options they are given, but work to change the rules of the game so they are presented with different options that produce end states they prefer even more. Schmid has shown that people have preferences about structure as well as performance, but by treating structure and conduct merely as instruments to bring about end states, he does not make a clean break with the behaviorism of the prevailing view. What the prevailing view fails to note is that much of the policy debate on contentious issues does not treat structure and conduct as if they were only instrumentally valuable, or that the ultimate test of value resides in preferences for end states.

The reasons people actually give for choice stipulate that certain forms of structure and conduct are proper (or improper) irrespective of the end states they produce. This result is thoroughly consistent with ordinary language. Our most familiar examples of immoral behavior, lying and promise breaking, are thought to involve some

amount of wrongdoing even when they produce good consequences. To be sure, moral philosophy is full of so-called "tough-cases" in which the imperatives of truth-telling and promise-keeping are confuted by unwanted consequences; the point here is that these forms of conduct are typically thought requisite and praiseworthy irrespective of the consequences they bring about. Both ordinary language and ethical theory provide rich sources for articulating and then analyzing the non-consequential arguments that will be most readily applied to structure and conduct. In the interests of brevity, they can be summarized in terms of rights and virtues.

Ethical theory illuminates debates over structure as being primarily concerned with the establishment (or disestablishment) of rights. The prevailing view of policy choice recognizes rights, but interprets them as instruments for producing consequences. While it is clear enough that those who advocate policy change based on rights arguments generally approve of the end state associated with that change, the language of rights need not and frequently does not appeal to end states for justification. Indeed, the rejection of end state appeals was the main point of Robert Nozick's influential 1974 book, *Anarchy, State and Utopia*. Historically, rights are the minority's strongest weapon against majoritarian interests, and, as Ronald Dworkin has written in his work on law, once rights have been recognized as components of a legal structure, their protection overrides or "trumps" arguments based on social consequences. When policy educators assume that structure is justified solely by individuals' assessments of the end state it produces, they neglect the tradition of rights, and compromise the objectivity of their analysis by according priority to that tradition of ethical theory represented by Jeremy Bentham, who derided rights as "nonsense on stilts."

Since rights arguments are frequently advanced in support of the politically weak and for minority claims, one would expect that agriculture and natural resource policy lends itself to important rights arguments with respect to issues such as the health and welfare of agricultural workers, and to the role and status of women. However, two areas in which rights arguments are crucial involve claims advanced by relatively powerful groups: food safety and wildlife preservation. With respect to food, consumer groups have claimed rights to informed consent regarding the origins of their food. Food labels are the policy vehicles that are most frequently associated with this right, though other forms of regulation are also suggested. The use of chemicals or of recombinant DNA technology are of particular interest to consumers, but some groups have claimed the right on the grounds of a desire to express solidarity with regional family farms. The right of informed consent is claimed without regard to any alleged health benefit associated with consumption of the food. Furthermore, the right is claimed irrespective of any intention to exercise it in making food choices; consumers may claim the right to informed consent even when they have no intention of refusing to

purchase and consume the foods. Therefore, the importance of this right may not be reflected in consumer behavior (Thompson, 1993).

Rights arguments are also prominent in endangered species controversies. Ironically, it is the rights of traditional agricultural interests that are often asserted against policies being advocated by environmental groups. Throughout the west, ranchers have resorted to the argument that private property rights are being threatened by environmental policies designed to preserve habitat for endangered species. Property rights are non-interference rights that permit individuals total discretion in the use of a good, up to the point at which such use harms or violates non-interference rights of another specific individual. The constraints of the present context preclude even a cursory discussion of the theory behind non-interference rights. It is worth noting, however, that advocates of non-interference rights emphatically insist that rights may never be violated on the grounds of providing generally (or even overwhelmingly) beneficial services.

These private property arguments present a good comparison between the prevailing view of policy education and the SSCP model. The prevailing view would simply predict costs and benefits to both environment and producers that would be associated with a change in policy. Ranchers who accept the prevailing view of what the policy dispute is about face several problems. First, they are unlikely to cite the long history of political theory on private property rights in making their case, denying themselves the strongest legal and political argument. Second, they must instead use complex technical models to show that their production has greater value than the value of species conservation, which will be measured according to a bewildering array of ecological, travel cost, and contingent valuation models. This debate promises much work for economists, but little hope of shared understandings among non-specialists. Finally, ranchers would appear obliged to accept compensation for the measured costs of a conservation plan, should one be proffered. Yet a right that may be coercively abrogated by offering compensation is not a true right at all. The ethics view, by contrast, would interpret the ranchers as arguing that structure must respect private property rights, or else violate constitutional principles that are the foundation of consensual governance. As such, the burden of proof is on the other side, and it is a heavy one. There are, of course, rights arguments asserting an opposing claim on behalf of endangered species themselves, but space does not permit their exposition.

The SSCP view also facilitates our understanding of the link between conduct and character. Clearly, many of the main themes of ethical theory identify certain forms of conduct as representing virtuous or sound character, while others are evidence of turpitude, corruption and venality. Like rights, character or virtue ethics introduces complications into public policy analysis that cannot be examined in the present context, but discussion of "the character issue"

with respect to the Clinton presidency makes it clear that this tradition of thought is alive and being applied in crucial areas of public policy. Character or virtue arguments refer to the conduct part of an SSCP analysis, and would assert that policies that engender inappropriate conduct are unacceptable. It seems likely that the most powerful arguments against the current system of social welfare are conduct arguments, for example, since it is at least less clear that the costs of the system outweigh its benefits.

Character and virtue arguments are very important in agriculture and natural resource policy. The long tradition of agricultural policy protecting family farms and rural life is difficult to justify without at least implicit appeal to the widely shared belief that farms and rural communities encourage the development of strong moral character. It is also much easier to take environmental concepts such as respect for nature seriously when they are interpreted as statements about character and conduct, rather than through conceits such as existence value or deep ecology (Thompson, 1991). Nevertheless, it must be admitted that the tradition of ethical theory associated with virtue, character and community is built upon many beliefs that social science has shown to be dubious. Are farm kids truly more hard working and honest than kids from the suburb? Does living in an mobile society really destroy the attachment to friends and family that comes naturally to a person deriving a lifetime's income from the same plot of land? Virtue ethics has the appeal of common sense in asserting that rules and environments can encourage habits of mind and of behavior, but it asserts causal relationships that are notoriously difficult to prove. While it is important to give virtue arguments their due in explaining alternative viewpoints on public policy, they will make policy analysts schooled in the social sciences uneasy.

Finally, utilitarian or consequentialist arguments do evaluate structure and conduct in terms of the consequences or end states produced. As noted already, this way of assessing policy is already well represented in policy education. It is the typical interpretation given to performance by those who learned SSCP at Michigan State. The history and theory of ethics does have something to offer for saying why certain end states are good, and others are bad, but this venerable tradition in ethics has existed in some form since antiquity, and it cannot be given a decent exposition in the present context.

The ability to predict consequences will always strengthen the appeal of performance-focused assessments. The predictive power of science thus makes scientific models and consequential ethics into natural bedfellows. There is clearly much good that has and will continue to come from this alliance, but the use of scientific models can be questioned when the consequential viewpoint is simply assumed uncritically. Performance is but one part of policy, and conse-

quence assessment is but one way to formulate an argument in favor of policies. Objectivity requires equal consideration and reporting of arguments that attribute primary importance to structure, most likely through appeal to rights, and of arguments that focus on conduct, through appeals to virtue and community.

What Have We Achieved?

The new understandings of agriculture and natural resources that are now impinging on the policy process need to be accommodated. Both democracy and self-interest demand it. I could summarize my remarks by saying that marginal returns on investment in models and data diminish rapidly as diverse viewpoints enter the debate on agriculture and natural resources. The prevailing view of policy education produces a welter of technical detail to support end state predictions that are irrelevant to considerations of rights or character. Even worse, using technical detail to "snow" opponents and obfuscate issues justifiably undermines the broader public's confidence in science (and scientists). This loss of confidence reduces the persuasiveness of models and data, even when they are used properly.

Better practice requires that scientific results be presented in a balanced context that respects the shared meanings and traditions of argument that persist in ordinary, non-scientific language. Policy educators who continue to rely on the prevailing view will have only themselves to blame when their predictions are ignored and their own character is questioned. The ethics-oriented adaption of SSCP will not guarantee better policy or better accommodation of multiple interests, but it will facilitate both. It will make fair and accurate representation of opposing viewpoints easier to understand. It will use models and data in the formulation of consequence predicting models where they are appropriate, but will appeal to longstanding traditions of legal, historical and philosophical analysis in formulating appeals to rights and virtue.

Any approach to policy education must be well executed. The SSCP approach is hardly a cookbook that will guarantee the representation of diverse viewpoints and arguments. A policy educator can clearly use the framework I have described to willfully pass over inconvenient viewpoints, and might still exclude groups and arguments unintentionally. The ethics view recommends itself primarily because it draws attention to important arguments that have been systematically overlooked by policy educators who have been schooled in the assumptions of the prevailing view. Since these arguments influence the way both traditional interests and new contenders understand agriculture and natural resources, it is reasonable to think they will become important components of better communication and of research on policy that integrates scientific models into intelligible and informative efforts at policy education.

Fair and accurate representation of the reasons why people campaign for policy proposals requires attention to the way that structure and conduct are often the object of concern, rather than predicted performance. One would hope and expect that more accurate policy education on the reasons for disagreement would, in some cases, at least, facilitate the formation of consensus or the identification of compromise. When people can see each other as reasonable, there is increased opportunity for innovative and mutually acceptable collaborative problem solving. There is much research to be done on whether and how this framework can be utilized in effective problem solving, and it is difficult at this juncture to predict or measure its potential (Pagano and Abdalla).

Opponents will at least be better informed of the reasons why others disagree, and may, on occasion, find elements of compromise and common interest that will make some problems easier to solve. That is what we should expect from objective policy education, and nothing less.

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SUMMARY OF ETHICAL PERSPECTIVES REACTOR PANEL

TRANSITION OF FOOD AND AGRICULTURAL POLICY

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The transition of food and agricultural policy challenges efficiency and competitiveness as primary goals of agricultural and food policy. It could replace economic performance criteria with social or ethical criteria. In doing so, it would sacrifice efficiency, low food costs, and export competitiveness. Such tradeoffs have not heretofore been pursued although the political rhetoric often has indicated the contrary. For example, while family farm survival has been a stated goal of agricultural policy and moderate-size farmers have benefitted more than large farmers from a survival perspective, this has not happened at the expense of efficiency. Moreover, the term family farmer has never been sufficiently defined in the law for lawmakers and implementers to determine whom they are trying to save.

Transition rhetoric suggests the future will be different. It suggests family farms and environmentally friendly (green) outcomes will be sufficiently tightly defined to satisfy a different set of goals. In the process, there will be many political battles over the distribution of farm program benefits, over private property rights, and over the degree of government regulation of agriculture. During this transition, public policy educators run the risk of becoming entangled in positions of advocacy and value judgments. Aside from describing the forces of change (the situation or what is happening), policy educators will best serve society if they continue to concentrate on policy options and their consequences in what Paul Thompson refers to elsewhere in this publication as performance criteria. Policymakers, not economists, are elected to make decisions on issues such as rights, appropriate conduct and desired performance measures/levels.

BUILDING HUMAN CAPITAL—REFORMING EDUCATION

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These remarks are limited to reforms in the K-12 system and are not intended to be comprehensive.

1. Defining the problem—how and who? The problem or issue is typically defined in terms of *performance*. School systems are perceived as failing or coming up short in their "mission." Missions are most often seen as providing cost-effective education that meets the needs of all students and prepares them adequately for work and citizenship.

   Who defines the problem? Professional educators, school boards, business and occupational groups, parent groups, taxpayer groups and state governments (executive and legislators).

2. How are alternatives defined and by whom? Alternatives for addressing the problem (or problems) often fall into three major categories and are given varying degrees of emphasis depending upon how the problem is perceived. For example, professional educators tend to pursue alternatives involving curriculum revision, graduation requirements, pupil-teacher ratios, teacher training, need for additional resources, etc. Taxpayer groups, politicians and, in some cases, the courts, pursue alternatives that address issues of equity (for both students and taxpayers), adequacy of resources, and efficient use of resources. Sometimes consolidation becomes part of the equation.

   Others see the problem as rooted in the governance and control of schools and put forward alternatives designed to obtain more parent and citizen input, more organizational options (such as charter schools, vouchers, etc.) and more flexibility to meet the needs of diverse student bodies, openness to innovation, etc.

3. How are the criteria for choice determined and by whom? Professional educators, employers, and funders often push *measures of student achievement* such as test scores, dropout rates, success in college and adequate preparation for work. Funders and taxpayers use criteria such as a system of school finance that produces adequate revenue and is "fair" to taxpayers.

   State governments, groups who feel disadvantaged, and courts look at consistency with state laws and state constitutions. Others use criteria that address degree of public participation and support (i.e., they look at the way decisions and policies are made. They put a high value on having all voices heard.

These issues have ethical dimensions, touch deeply held values, and are extremely contentious—they affect and impact our notions about family, country, culture and work.

ENVIRONMENTAL POLICY ISSUES

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There is a plentiful supply of ethical issues and dilemmas in environmental policy problems. At the national level, there are many new value orientations and a broadened set of ethical criteria being used to define environmental problems and evaluate public policy options. For example, interest groups have brought management concepts, such as ecosystem and watershed management, and criteria, such as biological diversity and sustainability, to debates regarding the 1995 farm bill, Clean Water Act and the Endangered Species Act. The fact that "green payments" are being discussed as a policy option among some mainstream interest agricultural groups and analysts attests to the increasing role of environmental values in shaping the debate about national food and agricultural policy.

The national issues alluded to illustrate the pervasiveness of value questions in environmental policy. But how do these relate to public policy education and the state and local program level? The broadening of stakeholders and value orientations relating to environmental policy questions is occurring at the state and local levels as well as the national level, although faster in some areas than others. As this happens, the way in which environmental problems are defined, the way in which alternatives are identified and created, and the way in which the criteria for public choice are determined are changing. This raises at least three central questions for our educational programs and supporting research activities: 1) Are we effectively adapting to this change by broadening the stakeholder groups we involve and relate to in our programs? 2) Do we treat "new" stakeholder groups as having a legitimate interest and role in policy discussion related to agriculture and the food system? 3) Do we use policy education methods that are balanced and fair and allow new and different problem definitions, alternatives and choice criteria? From my experience, especially in working with state level faculty in Pennsylvania and elsewhere, I believe, more often than not, we are not being sufficiently inclusive in terms of the audiences we work with or balanced in the educational methods we use. Unless we make more significant efforts to adjust to the changing world around us, I believe we will be doing a disservice to our traditional audiences, new individuals and groups and, worst of all, to the future of extension as an organization that helps people address in a meaningful way the problems that are of utmost concern to them.

The Situation-Structure-Conduct-Performance framework developed by Schmid and interpreted by Thompson in his paper offers some potential for overcoming the barriers to improved understanding and relationships between educators from the social and physical sciences working on environmental policy issues. The "alternative-consequences" approach to policy education is a performance-based or more utilitarian approach to policy analysis. Social scientists are generally comfortable with this approach and the potential for balance and greater objectivity it provides. Many stakeholders in policy issues evaluate policies in terms other than, or in addition to, consequences, but also may place value on particular structure or rights and conduct. A number of extension educators trained in the physical agricultural production sciences, perhaps due to identification with farm and food system audiences for their work, tend to apply structure and conduct criteria, or performance criteria different than social sciences, when conducting policy analysis. The emphasis of social scientists on performance and physical scientists on structure or conduct may be an important reason why multi-disciplinary collaboration on environmental policy issues has been difficult. By allowing scientists from different perspectives to see the bigger picture, the Situation-Structure-Conduct-Performance framework may provide a vehicle for enhanced communication and cooperation.

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ETHICS AND TRADE ISSUES

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It is very common for ethical questions to be raised with trade-related issues. What follows is a list of such concerns stated as assertions. They are distributional in nature. Just as their appearance on the list is not intended to give credence in fact, neither is the order intended to suggest level of priority. Following the list of possible ethical assertions are four simple questions that one can ask about each assertion so that some filtering may take place.

1. Some businesses export "banned, damned or otherwise damaged goods" to a less discriminating world (e.g., the general practice of "dumping," the sale of hazardous chemicals and weapons of war).

2. The government promotes trade practices and a philosophy that may unintentionally harm culture (Schumpeter's destructive gales of capitalism).

3. We import a brain trust to the detriment of native countries (scientists, entrepreneurs, others from third world countries).

4. We exploit the natural resources of other countries.

5. We denigrate/re-direct the self-sufficiency concept, especially with third world countries (from production-based self-sufficiency to economic-based self-sufficiency).

Questions that one may ask of these assertions to determine their importance include these:

A. Is the assertion "true" (noting how "truth" is defined, and whether "truth" is spelled with a small "t" or capital "T").

B. If so, is the practice ethical?

C. What are the realistic options (both to evaluate and to respond to concerns deemed legitimate) and likely consequences?

D. Who cares (*not* in a cynical way, but in a pragmatic manner)?

Ethics does matter in the practices of international trade. What is needed is to apply the value of ethics in a logical and constructive framework.

FINANCING EDUCATION AND THE DEVELOPMENT OF HUMAN CAPITAL

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Social contract is defined as what a person would be expected to give and to get from the community or society to which the person belongs. Examples are the protection of property and the right to use it in return for paying part of the cost required to operate the services needed to protect and enhance its value. Another example is that my parents care for me as I develop to be a productive citizen; in their later life, I am responsible to care for them. A third example is the provision of education to the young so they may have more productive lives and a surplus to support senior citizens. I would classify all three of these examples under rights and duties.

The current difficulty in redefining the social contract is who should pay how much and in what manner, and who should receive which benefits? In order to have productive human capital, investment must be made. Do we spend the resources on cure or prevention? Should health care funds be spent on preventive care which reduces overall cost or curative care which is interventive for problems that develop for whatever reason? Should a high level of living be provided for those receiving transfer payments, or should funds

be utilized for education of young citizens? Should housing be subsidized for some while not for others?

As social contracts are being renegotiated, are we being ethical? Are our educational programs appropriate? What are the consequences to different parties of the social contracts that are being negotiated?

SUSTAINABLE RURAL POLICY

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Webster's dictionary defines ethics as a system of right or good behavior (moral principles). The discussion that follows is based on this definition.

The first ethical consideration is, who defines the rural problem(s). The common good or what is best for rural communities differs depending on whether national, state or local entities define the problems. The same is true when defining what is "rural." Consideration must be given to the composition of the definition and problem identification team(s). Every effort needs to be exerted to insure the inclusion of political and lay leaders, and residents in the process.

The definition of what is a "sustainable rural community" has ethical implications. Considerations must be given to what is the balance between the preservation of the rural environment (aesthetics), economic development, and increased opportunities for rural people. A sustainable rural policy must also define success criteria. Success criteria that evaluate the economy as a whole will render different results from those that target pockets of persistent poverty. Measuring success by aggregating economic and social well-being across rural economies or within pockets of poverty places a different focus on what is good and right.

Agricultural development's role in a sustainable rural policy has ethical overtones. Is agriculture the umbrella or a subset of rural policy development? The answer to the question could vary in results and, therefore, it is imperative that the common good of rural communities remain the focal point of all policy deliberations. A final point of ethical consideration is the rural/urban tradeoffs. Is developing a sustainable rural policy complementary or competitive to developing a sustainable urban policy? Policymakers will be required to deal with whether rural people are better off at the expense of their urban counterparts or if the improvements affect all people.

In conclusion, these are a few ethical considerations associated with developing a sustainable rural policy.

Transition of Food and Agricultural Policy

THE 1995 FARM BILL ENVIRONMENT

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Public policy is shaped by many influences, chief among them the economic, social and political setting within which the options are debated. A review of the major features of the policymaking environment is, therefore, a useful point of departure for assessing the likely course of future policy. This is as true for farm policy as it is for policy relating to any other major national issue.

The policy environment consists of two major elements:

- The past—represented by the legacy of past policies.
- Outlook for the future—represented by present and prospective needs and circumstances.

Policy formulation emerges from a blend of these influences. The evolutionary course of farm policy is indicative of how important the accumulated experience of the past has been. While more immediate circumstances are always instrumental in shaping the twists and turns in farm policy, these changes have been tightly governed by the past. We begin, therefore, by considering some lessons of the past that can be expected to give direction and emphasis to the policy that emerges in 1995.

Lessons of the Past

With a history as rich as that of farm policy, there are many lessons on which to draw. While there are always differences of interpretation in what the past means for the future, they are far less than the differences that separate forecasts of an unknown future. As a result, lessons of the past are often more persuasive in guiding decisions. Some lessons confirm that earlier programs have worked well and have achieved their purposes while others indicate the opposite. Both lessons are instructive. Likewise, recent lessons are often more influential than those of the more distant past since they are more likely to be relevant to the future.

Five of these lessons, lessons that are likely to govern the coming farm policy debate, are described below.

Coalitions Are Critical

Coalitions have always been important to the passage of farm legislation. The very nature of the Agricultural Adjustment Act and the parade of omnibus farm legislation that has followed in its wake have been dependent on successfully forming coalitions of diverse commodity interests. As production agriculture became a smaller part of the growing national economy and needed to look beyond the farm gate for political support, it formed coalitions with other interests including domestic anti-poverty groups, international hunger organizations, and agribusiness.

With the continued shrinkage of the farm population, the commercialization of production agriculture, the globalization of food and agricultural markets, and the shifting nature of national priorities, coalitions are likely to be all the more important to the passage of farm legislation in the future. Agricultural leaders will need to look to those issues wherein their interests coincide with others (such as environmental protection) and to define their common ground.

Limitations of Domestic Farm Policy

It has become more evident in recent years that the farm economy is being impacted at least as much by policies and events outside agriculture (and often outside the nation) as by farm policy. The effect on the farm economy of oil cartels, inflation in the general economy, shifting exchange rates, and the economic growth rates of other countries often completely overshadow the impact of the farm programs. As a result, it has become increasingly less practical to think in terms of treating the U.S. farm sector as if it could be manipulated in isolation from the influence of global market forces.

This lesson has been reinforced over the past decade by the inability of large-scale acreage control measures to have other than a short-term influence over domestic commodity prices. U.S. acreage idling programs were designed in large measure to strengthen domestic prices. In an era in which domestic farm economies were far more self-contained and inward looking than they now are, these programs generally worked. However, a review of the U.S. experience since about 1980 indicates that this is no longer the case. While the United States has reduced acreage planted to corn, soybeans and wheat during the past fifteen years through a combination of annual and long-term acreage reduction programs, the farm prices of these commodities have trended downward rather than rising. And, there is little mystery about why this has occurred. In the case of both wheat and oilseeds, foreign producers expanded production while the United States was contracting, thereby substituting foreign exports for those from the United States. The resulting loss of U.S. market share effectively offsets the impact of reduced acreage on price. In recognition of this, commodity organizations that were once

advocates of the aggressive use of annual acreage idling programs have grown far more cautious in calling for their use.

Competitiveness in International Markets

The opening of U.S. agriculture to the global marketplace has done more than redefine the limits of domestic farm policy. It has also established that a central objective of these policies must be to move the sector toward achieving greater competitiveness in world markets. U.S. farm policy began moving down this road with the 1985 farm bill and reaffirmed it in 1990. However, U.S. policy has been schizophrenic in making this adjustment. While recognizing the importance of exports and the need to allow prices to move in response to market forces, as noted above, U.S. policies have also restricted production through the use of acreage retirement to the point that U.S. competitiveness has suffered. This inconsistency needs to be resolved in the 1995 farm bill.

The need for increased emphasis on promoting international competitiveness has another implication that adds to the complexity of dealing with the issue. The United States cannot expect to be competitive in the production and marketing of all agricultural products, including some that have been protected under past policies. Thus, to the extent international competitiveness becomes a key determinant of U.S. farm policy, it will be necessary to reduce or eliminate support for some commodities. This will not be easy, particularly when the farm bloc cannot afford further erosion of the traditional farm coalition.

Market Orientation

Agricultural commodity policy has gradually become more market oriented over the past two decades. Examples of this progression are adoption of the deficiency payment concept in 1973; cutting the milk price support level free of parity in 1981; lowering loan rates and linking them to a moving average of market prices in 1985; and the initiation of flexible acreage in 1990. While none of these measures was adopted without opposition, all have proven to be workable and have become accepted elements of current policy.

Conversely, measures taken to control production or otherwise restrict the functioning of agricultural markets have performed poorly. The whole herd buyout, the milk diversion program, the payment-in-kind program, and the production quotas applied to several commodities are examples of programs that, at their best, provided but temporary relief for short-term supply problems while contributing little or nothing to longer-term adjustments.

Beyond what has occurred in U.S. agricultural policy, markets are assuming an enlarged role in economic systems worldwide. The dis-

integration of the planned economies of the former Soviet Union and Eastern Europe, the economic reforms of China and a number of other developing countries, the moves away from socialization in Western Europe, and even the election of President Clinton under the banner of a New Democrat are all part of a common pattern whereby market forces are viewed as the principal engine of economic policy.

This is not to say that market solutions are always preferred by the electorate over collective solutions; clearly they are not. And, in fact, an increased dependence on market solutions will probably lead to calls for increased public supervision of these markets. But for public intervention in the marketplace to be accepted, there must be a widely-supported public purpose for doing so. And for a large segment of the public, the purpose of traditional farm policy is becoming highly suspect.

Consistency of Purpose

While it cannot be said that all farm policy is driven by a single purpose, it has not strayed far from its central objective of stabilizing the nation's farm economy. Ensuring the overall economic health of the farm sector has been its principal concern over the past half century or more. It has achieved this by supporting the price of program commodities or by direct payments tied to commodity prices. As a result, program benefits have been roughly proportional to the volume of production, at least up to certain legislated limits.

From time-to-time, however, farm programs have been used to achieve other purposes, or at least they have been justified on this basis. While this can sometimes be made to work—and the ever present need to draw other interests into the coalition of supporters provides a continuing temptation to try—the record is not encouraging. Preservation of the family farm, development of rural communities, feeding the hungry of the world, and protection of the environment are some of the many subsidiary purposes that have been linked to farm policy in the past. While at least some of these objectives were attained in some measure, eventually it came to be understood that the consistency of purpose was far less than initially thought and, as a result, farm policy contributed far less to the attainment of these secondary objectives than originally hoped.

The debate over the "decoupling" proposal in the late 1980s is perhaps illustrative. Farm program benefits under this proposal were to have been disconnected from the level of production and connected to some other (not very clearly defined) characteristic of the farming unit or the household. The merits of this change aside, its adoption would have fundamentally altered the purpose of the program. In the absence of support for the new purpose, the proposal was largely rejected out of hand.

This lesson is particularly germane at a time of such significant change. The principal lesson of this experience, as I interpret it, is *not* that the traditional purpose of farm policy has inherently greater merit than other competing purposes and farm programs should, therefore, not be applied to other aims. Rather, the lesson is that farm policy and other objectives are frequently incompatible to the degree that linking them undercuts the effectiveness of the program, usually to the disadvantage of the subsidiary objective. At the least, future policy should be framed in recognition of this inherent conflict.

Current Situation and Future Outlook

Policy formulation is also governed by more immediate considerations. While the overall framework of U.S. farm policy has remained largely the same over the past half century, there have been frequent changes at the program level. Many of these changes have been in response to key features of the near-term economic and political situation. Five features of the current situation that are likely to be of particular influence in the coming farm bill debate are described below.

The Budget

The cost of the commodity programs has been reasonably well-behaved in recent years. Though it rose to $16 billion in fiscal year 1993, it is expected to be around $10 billion in fiscal year 1995 and, under current policy, to remain around $8 to $10 billion into the foreseeable future. In comparison with other entitlement and mandatory spending programs, the cost of commoity programs is small, accounting for less than 1 percent of the fiscal 1995 budget.

The principal problem, however, has less to do with the cost of farm programs than with the intractability of the overall federal budget deficit and the implications of this for the general economy. The budget agreement that barely passed Congress last year (with help from the economic recovery), has, for the first time in several years, reversed the growth in the size of the deficit. Having declined from $290 billion in fiscal 1992 to $202 billion in fiscal 1994, the deficit is expected to retreat still further to $162 billion in fiscal 1995.

At that point, however, it changes direction. Absent significant reductions in the rate of growth in the cost of Medicare and Medicaid, the deficit again begins growing in 1996 and within six years will have doubled to record levels with no downturn in sight. Lack of significant progress in reducing the cost of publicly-provided health care within the next year will intensify efforts to reduce the cost of other programs, including farm programs.

While the reduced size of the farm program budget makes it a less

inviting target, the pressure to hold, if not reduce, program costs will remain intense. This has several implications. First, new policy initiatives can only be funded at the expense of existing programs. Second, administrative decisions made in the budget-making process—for example, whether the budget for the Conservation Reserve Program (CRP) is included in the baseline—could have a major impact on the outcome of the farm bill debate. Third, there will likely be increased attempts to evade these fiscal constraints by shifting the incidence of cost from taxpayers to consumers.

State of the Farm Economy

The economic health of the farm sector has always been a key factor in shaping farm legislation, though more so in times of trouble than in times of relative prosperity. As we approach the 1995 farm bill debate, three features of the farm economy could affect the debate in varying degrees.

First, the overall farm economy is generally sound despite weak commodity prices in some sectors. Agriculture has rebounded strongly from the conditions that prevailed a decade ago. Those farms that have achieved an efficient scale of operation and are well-managed appear to be earning a competitive rate of return on their labor and capital. Luther Tweeten argues that the farming industry is closer to long-term equilibrium than at any time in recent decades (Tweeten, p. 24). From the standpoint of the overall economic health of agriculture, there is no compelling reason to deviate from current policy.

A second feature that is not well reflected in industry-wide numbers is the rapid structural change that is occurring in some commodities. The almost revolutionary changes underway in the pork industry are the most dramatic example, but significant structural changes continue to reshape the dairy industry and are on the horizon for some crops. The national policy issues associated with these structural changes are not yet clearly defined. To date, state and local governments have been more directly affected, particularly in the case of the hog industry. Increased producer interest in various forms of collective action and in self-help measures is, in part, a reaction to these structural changes.

A third feature is the issue of agricultural land use and the future role of acreage set-asides. This issue will probably attract as much attention in the coming farm bill debate as any other single issue. The increased use of annual acreage retirement programs during the 1980s, combined with the adoption of the CRP in 1985, has removed 50 to 60 million acres of cropland from production in recent years. The CRP, which is responsible for more than 36 million acres of the total, has idled acreage for periods of at least ten years. The program has been popular with farmers and is credited with reduc-

ing U.S. cropland erosion by 22 percent (U.S. Department of Agriculture, 1994a, p. 5).

When U.S. policy turned to the aggressive use of acreage retirement measures in the mid-1980s, domestic markets were burdened with excessive supplies of most crops. Since then, however, the situation has changed significantly. Trends in the supply-demand situation for corn during the last ten crop years are illustrative of what has occurred. Even with the second largest corn crop on record forecast to go in the bins this fall, production will be only 4.3 percent above the level of 1985-1986. The trends in utilization over this period, however, have risen at a substantially faster pace. Comparing the most recent forecasts for the 1994-1995 crop year with the situation in 1985-1986, feed use is 28.8 percent higher; food, seed, and industrial use is up by 48.4 percent; and exports are expected to be 22.3 percent higher. In other words, while we have added less than 350 million bushels to production between these crop years, utilization has risen by nearly 2 billion bushels. The net result of these trends, not surprisingly, is that ending stocks have moved sharply lower. And while this year's large crop is forecast to return stocks to a more comfortable level, they will still be less than half the level of 1985-1986.

If the United States is to become a more aggressive participant in world grain and oilseed markets—and there is little option but for it to do so—it will be necessary to reconsider the role of acreage retirement, particularly the long-term retirement of productive cropland that is not environmentally fragile. Growth in the livestock sector, and in exports of livestock products in particular, is dependent on a relatively abundant and stable source of feedstuffs. If this is going to happen, a more expansive policy will be required.

Changing International Trade Focus

As the record of the past twenty years demonstrates, U.S. agriculture is heavily dependent on export sales. With the adoption of the North American Free Trade Agreement (NAFTA), the expected approval of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), and the prospect of further trade liberalization in the future, U.S. farm policy is entering a new era. It is an era that will require significant choices on the part of U.S. policymakers. Two of these choices will arise in deliberations over the 1995 farm bill.

The most immediate decision is to determine how the United States can successfully compete with its principal competitors during the transition period that lies ahead. Under the Uruguay Round agreement, over the next six years some trade barriers will be reduced, some will be eliminated, and still others will be largely unaffected. Furthermore, a wide array of agricultural support meas-

ures that are considered non-trade distorting under the agreement—e.g., conservation, market development and promotion, extension and education, crop insurance, etc.—are exempt from restriction under GATT. Even when all terms of the new agreement are fully implemented, substantial distortions will remain. Policymakers will, therefore, have to determine both the path of disengagement from the use of traditional export subsidies as well as which, if any, new tools will be adopted to replace these subsidies. Our major competitors in the international market are almost certainly at work on their strategies.

In addition, the United States will have to determine how far it will go in adapting its domestic policies to increase its international competitiveness. It will become increasingly harder to follow the middle course we are now pursuing. Though it possibly offers less instability and dislocation, it does so at the expense of slower growth, more unused capacity, and, over the long-run, reduced profitability.

Farm Policy and National Priorities

Farm policy has not been high in the national consciousness for a long time. Production agriculture is too far removed from the daily lives of most citizens and the nature of the policy issues too esoteric and too complicated to attract much public attention. As a result, debates over farm policy are of little interest to most voters and, therefore, of little interest to their elected representatives as well.

Linkages of farm policy to national issues are important, nonetheless. It is these linkages that make possible the coalitions that have been so important to the passage of farm legislation historically. But most issues at the top of the national agenda are, at best, marginally related to agriculture. One possible link is between employment growth and the expanded use of agricultural resources. A more expansive farm policy could result in additional job growth. For example, USDA has estimated that returning 63 percent of CRP acreage to production over the next eight years would generate about 94,000 jobs nationwide (U.S. Department of Agriculture, 1994b, p.24).

Food safety, domestic food assistance, and the relationship of diet and health are issues on the national agenda, though not at the top. Concern over food safety has ranked high in recent public opinion polls among urban residents. Domestic food assistance programs have historically provided a bridge between farm and urban constituencies, though the relationship is not in good repair. While the effect of diet on health is an issue of concern to many consumers, beyond the recently-adopted labeling requirements, the issue lacks policy focus. Whether any of these food issues, or others, will offer an opportunity to build support for farm policy remains to be seen.

The one issue with national visibility and established constituen-

cies that can and almost certainly will be linked to farm policy in the coming debate is environmental protection. Agriculture and the environment have been linked in a policy sense for a long time. But the policy measures that were adopted in 1985 and again in 1990 gave the environmental issue an even greater prominence and one that is likely to be refined if not enlarged in the 1995 farm bill. While the several programs with environmental objectives that have been adopted over the past ten years have been judged successful in varying degree, they represent more a beginning than an end to the environmental agenda.

Funding limits ensure that the coming debate over the role of agriculture in environmental protection will be intense. Nonetheless, there are numerous indications that the debate is assuming a more constructive tone and that the groundwork for more effective solutions is being laid. Experience with the design and implementation of the CRP suggests the need both to define environmental objectives with greater precision and to more carefully target resources to accomplish these objectives. The debate is also being broadened to include the relationship of farm profitability to environmental protection and to treat production units as systems. This is exemplified by the National Research Council's recent excellent volume on soil and water quality report from their Committee on Long-Range Soil and Water Conservation, chaired by Sandra Batie (National Research Council).

The Political Setting

The change in administration in 1992, combined with the accelerating turnover among members of Congress, means that for many policymakers, the deliberations in 1995 will be their first farm bill. At least thirty-one of the forty-eight members of the House Agriculture Committee will never have participated in the debate of a farm bill. If the past is any indication, this number will be even larger following the November election. Increasingly, new members of the House Committee represent constituencies that are less interested in commodity programs and more interested in employment and services in rural areas, food assistance programs, and protection of the environment. The changing complexion of the Congress will both slow the process and make the outcome less predictable.

The position of the Clinton administration on farm policy has been slow in forming, due in part to the absence of any precipitating events and, in part, to neglect. But this appears to be changing. The debate over NAFTA last year and GATT this year, combined with several trade and commodity program decisions, has given agriculture a higher profile, particularly among economic counselors in the White House.

To the extent an administration position can be discerned at this

early stage, it is to follow a policy that furthers U.S. competitiveness in world markets; continues to move toward greater use of markets and a wider latitude for producer decisions; and reduces program costs. There is little indication that the administration will embrace any very radical change from current programs given that these programs are relatively well received within the farm community. With 1995 being the eve of a presidential election year, the odds of major change are even less.

While there is little indication at this point that policymakers in either Congress or the administration are considering major policy changes, there is a flurry of activity on the part of interests representing producers, agribusiness and environmentalists, among others, to develop policy options. This activity seems to be driven by a resignation on the part of producer interests that budget constraints, environmental requirements, and liberalized world markets are eventually going to force major changes. Environmental interests, having linked their agenda to farm policy in 1985 and 1990, want to avoid any loss of influence, and, at the same time, would like to extend the focus to a broader array of environmental issues. The interests of agribusiness are diverse but, for the most part, they see advantage in an acceleration of the current trend toward a more market-oriented policy.

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COMMERCIAL FARMERS AS 1995 FARM BILL STAKEHOLDERS

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Obviously, I am not in a position to speak for the commercial farmer sector in the upcoming 1995 farm bill deliberations. What I can do, however, is to indicate some of the major points public policy educators should consider when delivering educational programs for commercial farmers. These points answer the following questions, some of which touch on issues discussed by Lynn Daft elsewhere in this publication:

- When do farm program benefits become so low farmers decide not to participate in the program?
- How can we most effectively react to the increasing number of economists who act as free market advocates in support of this particular program alternative?
- How does the implementation of the Uruguay Round Agreement (URA) of the General Agreement on Tariffs and Trade (GATT) affect the 1995 farm bill?
- What options exist for commercial farmers reacting to environmentalists in the 1995 farm bill deliberations?
- What bases exist for developing the required coalition to enact the 1995 farm bill?

Each of these questions is sufficiently complex to require a chapter-long answer. Therefore, my responses will be concise, but incomplete.

Program Participation

One of the most interesting observations gleaned from editing the National Public Policy Education Committee (NPPEC) papers for *1995 Farm Bill Policy Options and Consequences* is that farm program benefits are perceived to have declined sufficiently that farmers are on the verge of non-participation—that the program itself is unraveling. This perception results apparently from the decline that has occurred in payment acres under the flex provisions of the 1990 bill, the increasing costs of conservation compliance mandated under the 1985 bill, and the effects of inflation eating away at program benefits.

The Agricultural and Food Policy Center (AFPC) has done considerable research on this issue. We find that if the 1990 farm bill provisions were extended through year 2000, substantial benefits to farmer-participants would still exist throughout the life of the 1995 farm bill. Moreover, we find that even with a 10 percent reduction in target prices, there would be substantial incentives for farmers to participate. Figures 1 and 2 summarize the results of our analyses of our representative wheat and corn farms. The benefits to cotton and rice are larger (Knutson et al.). These results are in real terms—considering the effects of inflation at currently predicted levels of about 3 percent.

Reacting to Free Market Advocates

The General Accounting Office (GAO) and a number of economists (i.e., Tweeten, Runge and Cochrane) have joined forces to advocate doing away with current farm subsidies utilizing the following arguments:

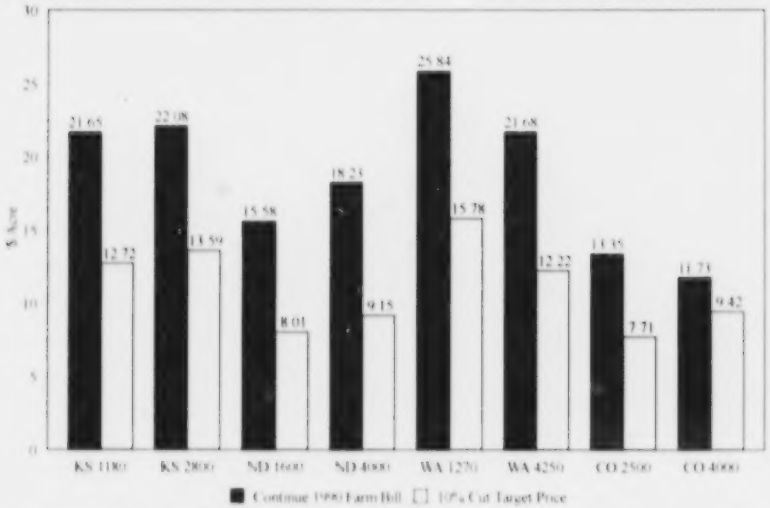
- The GAO analysis appears to be based primarily on the results of economic welfare analyses, indicating that the costs to consumers and taxpayers associated with the current programs are greater than the benefits—a dead-weight loss.
- Tweeten argues that farm program benefits are disappearing and that adjustments in agriculture have occurred to the point at which programs are no longer necessary (Tweeten).
- Runge and Cochrane argue that the programs are benefitting the wrong people.
- All of the above point out that commercial farmer income is now greater than nonfarm income.

In light of these developments, it is important that public policy educators consider the free market alternative when developing their 1995 farm bill educational programs. While this alternative is considered in the *1995 Farm Bill Policy Options and Consequences* publications, perhaps it did not receive the amount of discussion warranted in the individual commodity leaflets.

Educators need to consider the following factors when dealing with the consequences of moving to a free market:

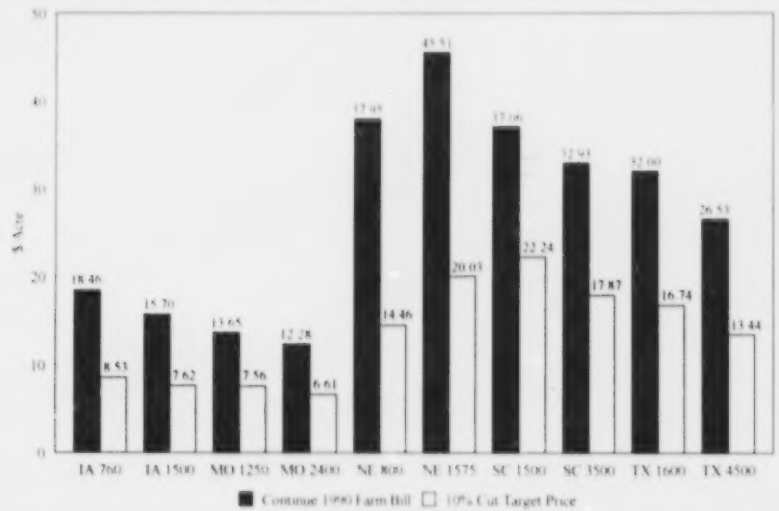
- The welfare analysis on which GAO and many economists base their conclusions utilizes a comparative static approach that does not consider the effects of adjustment resulting from displacement of farm families and resources. These effects could be particularly significant in commodities such as rice, cotton, wheat, peanuts and tobacco as well as in rural communities.
- Economic models are not particularly effective when used to ana-

Figure 1. Average Annual Difference in Net Cash Income Per Acre Between Participating and Non-Participating Representative Wheat Farms 1995-2000*



*Assuming Continuation of the 1990 Farm Bill and a 10 Percent Cut in Target Price.

Figure 2. Average Annual Difference in Net Cash Income Per Acre Between Participating and Non-Participating Representative Corn Farms 1995-2000*



*Assuming Continuation of the 1990 Farm Bill and a 10 Percent Cut in Target Price.

lyze the impacts of major adjustments in policy. Such adjustments are not represented in the data base contained in the model. Therefore, the projected impacts are made outside the range of the data used to estimate the model.

- The problems and impacts of agricultural price and income instability associated with free markets having highly inelastic supplies and demands are not considered.
- The benefits of stocks policy in terms of food security and price stability would not exist.
- Environmental compliance and Conservation Reserve Program (CRP) benefits are not considered.

In other words, it is important that the free market alternative be presented in a balanced context, considering both the arguments of the free market advocates and the above concerns that, apparently, are dismissed by the advocates.

Implementing the URA/GATT

Two general issues relate to implementation of the Uruguay Round (URA) of the General Agreement on Tariffs and Trade (GATT). The first involves the implications of the URA's implementing legislation for the farm bill and the second involves the implications of the URA for the farm bill itself.

Ideally, the implementing legislation would have been out of the way well in advance of the 1995 farm bill debate. That has not happened. The potential now clearly exists for muddying the farm bill debate with implementation of GATT provisions. One proposal that could substantially change the nature of the debate involves making the 1990 farm bill permanent legislation in place of the 1949 act. If this happens, it would remove the 1949 act bargaining tool for enacting a 1995 bill. Therefore, the 1990 farm bill could go largely unmodified except for some changes attributable to the URA.

The URA places a moratorium on existing farm subsidy wars with the European Union (EU) while phasing out the direct export subsidy programs. However, the URA opens the door for new means of rationalizing existing programs. For example:

- Payments for the purpose of environmental protection (green payments) appear to be legal under the URA. Green payments could become a 1995 farm bill rationale for extending CRP. Deficiency payments may be rationalized as green payments for conservation compliance, and payments may be made for specific practices.
- Decoupled payments appear to be legal under the URA. What constitutes decoupled payments has become increasingly ob-

secure. Are frozen payment yields alone sufficient to justify decoupling under the URA? Are effective payment limits also required? What about frozen payment yields in the absence of effective payment limits?

- Price and income supports in the presence of production controls appear to be legal under the URA. While production controls are contrary to competitive principles, they are viewed as being consistent with freer trade because they reduce incentives to subsidize exports. Ironically, this could become the basis for increased producer interests in production controls. Specifically, the EU can be expected to increasingly utilize production controls as a means of maintaining relatively high producer returns while controlling production sufficiently to reduce adverse impacts on the world market.

- Market promotion, international food aid, and export credit appear to be legal under the URA. However, overt export enhancement subsidies are due to be phased out under the URA. The bounds between legal export promotion and illegal export subsidies remain to be established by the new World Trade Organization—the arbitrating body for URA implementation.

Reacting to Environmentalists

Environmentalists' support may be one of the keys to garnering the 218 House votes needed to enact the 1995 farm bill. Rural votes in the House of Representatives total only about 70, leaving 148 that must be obtained from other interests. Environmentalists held a key to enacting the 1985 farm bill when the CRP was established.

While environmentalists may be needed to enact the 1995 farm bill, there are several potential areas of severe conflict that could become a barrier to necessary coalition building. The most contentious of these appears to be that of property rights. Aside from interference with the farmers' view of their right to farm, extremely strong opposition is developing to uncompensated regulation of farming practices and reductions in land values resulting from restrictions on use. An additional point of conflict involves restrictions on pesticides which commercial farmers view as being essential for maintaining yields and reducing production risks.

While these potential points of conflict exist, there are several areas of potential agreement or compromise with environmentalists. Farmers are concerned about water quality and they are concerned about wise use of pesticides. Their health would be adversely affected by water quality deterioration and unwise pesticide use. Policy initiatives to protect water quality and reduce pesticide residues could be favorably received by agriculture if these policies are designed to deal with the health issue while not adversely affecting competitiveness. Initiatives to encourage widespread adoption of in-

tegrated pest management (IPM) is illustrative of a policy that could be supported by commercial farmers—as long as it does not carry with it anticompetitive regulatory baggage.

While farmers are concerned about soil erosion, the economic evidence is clear enough that erosion control does not, as a general rule, pay—even when considering the impacts of changes in land values (Timmons and Amos; Gardner and Barrows). This was the underlying rationale for the formation of the Soil Conservation Service (SCS) and the Agriculture Conservation Program (ACP). The basis exists for dealing with soil conservation and related environmental issues through compromise involving continued use of CRP, conservation compliance, and an expanded ACP having environmentally-sensitive objectives.

Developing the Required Coalition

As indicated previously, a key issue in the 1995 farm bill debate will involve developing provisions that will attract the necessary 218 votes and still allow farmers to compete and survive. From a commercial farmer perspective, there will be three keys to accomplishing this desired end result:

- Agreement is required within the farm bloc on how to deal with a number of touchy commodity issues. Among these will be attempts by those opposed to farm programs to eliminate individual, if not all, programs. Dairy, peanuts, sugar and cotton are often mentioned as candidates for elimination. There will be efforts to reinstate the wool and mohair program, which could require budget concessions by other commodities. The wool and mohair program is being phased out because the farm bloc did not hang together in defense of commodity programs. Other commodities are equally vulnerable in the absence of a solid farm bloc.

- The farm and environmentalist blocs must find a way to compromise. With some give on each side, compromise is possible on CRP, conservation compliance and green payments. Regulatory and pesticide issues could end up driving a wedge between these two important groups in the farm bill debate. Both sides will need to exercise care to see that this does not happen.

- Farmers cannot afford to get into conflicts with food program provisions. There is no reason this should happen. Despite how uncomfortable farmers feel about welfare programs being more than half of the U.S. Department of Agriculture (USDA) budget, these programs attract central city Congressional votes *for* the farm bill. It would be a serious mistake to get hung up with the food lobby on issues such as the food pyramid (nutrition education), the nutritional content of school lunches, or the requirements for meat and poultry inspection. There is much more to

lose on farm program benefits or environmental regulation than there is to gain on food issues.

These comments should not be interpreted as being negative for agriculture. Rather, what is suggested is a strategy designed to maximize the political muscle inherent in agriculture and food while realizing that farmers are a political minority. The case for farm programs is as strong as it has been in the past. However, with fewer numbers, that case has to be made more clearly, more convincingly, and with a realization of the need for coalition building and political compromise.

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ATTITUDES OF SMALL FARMERS AS 1995 FARM BILL STAKEHOLDERS

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The Cooperative Extension Programs at Prairie View A&M University and other 1890 land grant institutions recognize that in order to properly design public issues education programs to meet the needs of small and limited resource farmers, they must identify the issues and concerns facing these farmers. Determining the opinions and preferences of small farmers concerning the future of agriculture and food policy as they pertain to the 1995 farm bill is of particular interest to extension educators. Empowered with the knowledge of how these public issues are viewed by small farmers in states representing various geographical regions, input on planning programs and legislation can be made to policymakers at the local, state and national levels.

Prior to the initiation of this study, Fred Woods, Extension Service, U.S. Department of Agriculture (USDA), advised me that a significant number of 1862 land grant universities were surveying large commercial farmers concerning their preferences on the 1995 farm bill. Surveying small farmers from some of the same states to obtain data on their preferences also was of distinct interest.

Of the sixteen 1890 land grant institutions invited to participate in this survey, the following nine institutions agreed to take part:

1. Prairie View A&M University—Prairie View, Texas
2. University of Arkansas—Pine Bluff, Arkansas
3. Florida A&M University—Tallahassee, Florida
4. Tennessee State University—Nashville, Tennessee
5. South Carolina State College-Orangeburg, South Carolina
6. University of Maryland-Eastern Shore—Princess Anne, Maryland
7. Virginia State University—Petersburg, Virginia
8. Fort Valley State College—Fort Valley, Georgia
9. Alabama A&M University—Normal, Alabama

Objectives

The Cooperative Extension Program at Prairie View A&M University, in cooperation with other 1890 land grant institutions, conducted a survey to determine small-farm agricultural producer opinions and preferences concerning the future of food and agriculture

policy as they pertain to 1995 farm bill issues. The survey plan consisted of sampling one hundred small farmers in each of the states in which 1890 institutions were located with the following objectives:

1. To obtain a broad assessment of preferences and attitudes of small farmers to serve as a basis for input on the 1995 farm bill.
2. To enable state extension services to improve their public issues education programs to meet the needs of their small farm clientele.
3. To enable states to provide input to elected congressional representatives regarding the policy preferences of the small farmers.

Procedures

Support was solicited and obtained from the 1890 extension administrators for the conduct of this survey during their annual conference. Defining what constitutes a small farm has been addressed many times in current literature. For example, James Lewis uncovered more than forty references to small farms. To attempt to cite a variety of different definitions of small farms is beyond the scope of this study. Rather, the one-dimensional definition used in this study identifies a small farm as one that has annual gross farm sales of less than $40,000.

The starting point for this survey was the instrument developed at the University of Illinois and Purdue University for use by the 1862 universities. Questions selected related most specifically to small farmers. Lawrence Lippke and Ronald Knutson, Texas Agricultural Extension Service, agreed to provide assistance throughout the preparation, conduct and analysis of the small farmer survey.

Mailed surveys were sent to sixteen 1890 land grant institutions requesting that each conduct interviews of one hundred small farmers. Survey instruments were collected by nine 1890 representatives and forwarded to the Project Director. Survey instruments were processed by Data Processing, Texas Agricultural Extension Service. Survey data were analyzed by representatives of the Texas Agricultural Extension Service and the Cooperative Extension Program at Prairie View A&M University.

Survey Results

Nine of sixteen land grant institutions responded to the request for conduct of small farmer surveys in their states. A total of 644 responses were received.

More than 61 percent of the farmers surveyed indicated their gross farm income was under $40,000 (Table 1). This indicates very clearly that the vast majority of farmers being assisted by these 1890

land grant institutions are small farmers. Table 1 also indicates that 90 percent of the sample had off-farm income of less than $40,000 and 87 percent had gross sales of less than $100,000. This confirms that the majority of clientele served are limited-resource, small farmers.

The sample distribution, in descending order of sales, was as indicated in Table 2. The most important source of cash receipts for farmers is livestock (24 percent). This is especially true in Texas where a recent survey indicates that more than 81 percent of farm borrowers with the Farmers Home Administration special project

Table 1. Sample Sales and Income Demographics

	Income	Percent of Sample
Gross Sales	Under $40,000	61
	$40,000-$99,999	26
	$100,000-$249,999	10
	$250,000-$499,999	3
	$500,000 and Over	0
Off-Farm Income	Under $10,000	36
	$10,000-$19,999	30
	$20,000-$39,999	25
	$40,000 and over	9

Table 2. Sample Distribution

	Percent of Sample
Most Important Source of Cash Receipts (1993)	
Livestock	24
Other (Hay, etc.)	23
Fruits and Vegetables	18
Mixed Grain and Livestock	14
Grain	13
Cotton	1
Dairy	1
Program Participation (1993)	
Disaster	28
Feed Grain	17
Wheat	12
CRP	12
Cotton	9
Wool	2
Rice	1
WOR	1
At Least One Program	55

were beef cattle producers. Livestock producer respondents followed closely by a miscellaneous group called "other" which included hay (23 percent).

More than half of the sample (55 percent) participated in at least one farm program. The largest government program these farmers participated in was the disaster program (28 percent), a firm indication that disaster programs are very important to the small farmers. Percentages of other program-participating respondents were feed grain (17 percent), wheat (12 percent), Conservation Reserve Program (12 percent), and cotton (9 percent).

In Table 3, 61 percent of respondents representing a majority in eight of nine states wanted to keep current programs involving price supports, income supports, and set-asides. Seventeen percent of respondents wanted to eliminate all commodity programs, including set-aside, price support and deficiency payments.

A plurality of these respondents (48 percent) indicated that if spending cuts were made in commodity programs, payments should be made to only small and medium-sized farms (Table 4). Thirty percent chose to reduce the number of payment acres. Very few respondents (22 percent) wanted a reduction in target prices and deficiency payments. The combination of Tables 3 and 4 indicate that most small farmers do not want to change government programs.

Table 5 indicates a mixed reaction from respondents about how the government should protect them from disaster such as floods and droughts. The larger group (35 percent) felt government should develop a permanent disaster program for losses that exceed 50 percent and encourage the farmers to buy additional protection by

Table 3. Preferred Farm Policy Approach for 1995 Farm Bill

	Percent	Number of States Preferring
Keep Program	61	8
Mandatory Controls	12	0
Decoupling	10	0
Eliminate	17	1

Table 4. Preferred Spending Cuts

	Percent	Number of Respondents Preferring
Reduce Target Prices	22	0
Reduce Payment Acres	30	3
Pay Only Small and Medium-Sized Farmers	48	6

using private crop insurance. Thirty percent felt Congress should decide each year who should receive disaster payments.

Table 6 displays strong views of small farmers regarding the role of government in dealing with environmental problems. This figure indicates clear preferences for governmental involvement in regulating and protecting water quality. However, it also shows that farmers want to be compensated for financial losses as a result of these regulations.

No clear preference was indicated by respondents asked, "Should cash be given to recipients in place of food stamps?" An equal number of states (3) agreed and disagreed with this proposal while 18 percent of respondents were unsure.

The majority of respondents (83 percent) felt the federal government should increase funding to expand employment and economic

Table 5. Preferred Role of Government in Disaster Protection

	Percent	Number of States Preferring
Congress Decides Who Gets Payments Each Year	30	3
Develop Permanent Disaster Program	35	5
Mandatory Crop Insurance	20	0
Private Insurance	15	1

Table 6. Preferred Role of Government in Dealing with Environmental Problems

	Percent Agree	Number of States Preferring
Regulate Water Quality Practices	62	9
Plant Filter Strips	66	8
Compensate for Filter Strips	83	9
Compensate for Property Value Loss	91	9

Table 7. Opinions on Cash Replacing Food Stamps

	Percent	Number of States
Strongly Agree	10	0
Agree	31	3
Not Sure	18	1
Disagree	23	3
Strongly Disagree	18	2

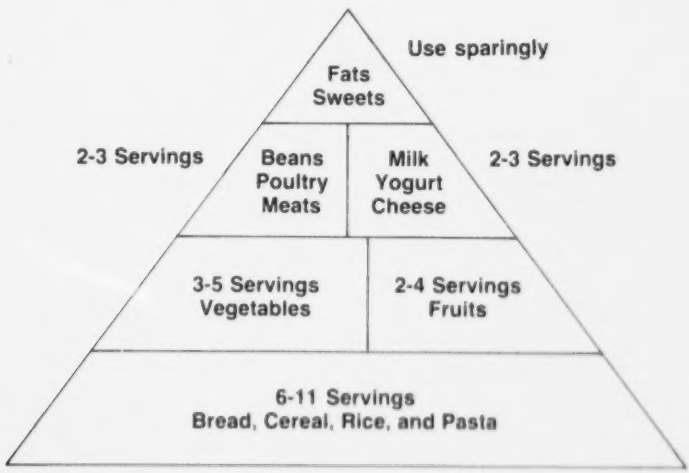
activities in rural areas. Expansion and enhancement of the public education system is viewed by small-farmer respondents as the single most important factor for improving rural area development. Education was identified as the most important need, being selected as one of the top three needs by 65 percent of respondents Table 8. This was followed by health care (46 percent), law enforcement and business development (40 percent), and workers skills (39 percent).

The food pyramid has become the symbol for a new approach to nutrition education (Figure 1). A significant number of respondents (46 percent) indicated a familiarity with the USDA food pyramid

Table 8. Need for Expanded Rural Development Funding

Most Important Needs	Percent Selecting as One of Top Needs	States' Top Priority
Education	65	8
Health Care	46	
Law Enforcement	40	1
Business Development	40	
Workers' Skills	39	
Roads	27	
Bridges	11	
Sewage	7	

Figure 1. The Food Pyramid



Source: U.S. Department of Agriculture and U.S. Department of Health and Human Services

Table 9. Attitudes Toward Food Pyramid

	Percent	Number of States
Familiar with Food Pyramid	46	6
Find Food Pyramid Useful	90	9

(Table 9). From this group ninety percent found it useful. This is an indication that educational programs regarding nutrition, diet and health are reaching limited-resource farm families and are having a positive influence on their lives.

Conclusions

- Limited-resource, small farmers are supportive of current farm programs. Most would like to keep present programs.
- The majority of the survey respondents are concerned about the environment and support governmental regulations. However, they want to be compensated for losses incurred as a result of these regulations.
- Respondents support disaster programs offered by the government. They would like to see a permanent program for losses exceeding 50 percent while encouraging farmers to purchase supplemental private insurance.
- Reactions were evenly balanced about whether recipients of food stamps should be given cash.
- Limited-resource, small farmers expressed a strong need for rural development with the area of greatest need identified as rural public education.
- Forty-six percent of respondents were familiar with the USDA food pyramid, possibly indicating the success of educational programs concerning nutrition, diet and health.

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TRANSITION IN FOOD AND AGRICULTURAL POLICY: KEY STAKEHOLDER—DOMESTIC CONSUMERS

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Looking back at statements about consumers' stake in food and agricultural policy I and others have written over the past decades, I asked myself what has changed? What has not changed is that assurance of an adequate and safe supply of food at a reasonable price remains consumers' primary stake in the outcome of food and agricultural policy. What has changed is the flow of information and the diversity within the industry. Agricultural markets are rapidly being privatized and, consequently, the role government policy can and should play in continuing to assure safe and adequate food for all consumers is uncertain and changing.

So far, I would argue, our policies have been quite successful. Most U.S. consumers have more than an adequate supply of food and its real price has fallen steadily over the past decades. All food and beverage takes about 15 percent of consumers' personal consumption expenditures and food eaten at home takes about 8.5 percent, the lowest percentages in the world (U.S. Department of Agriculture).

The danger is that this abundant and affordable food will be taken for granted. Even though any economist can easily point to any particular farm commodity program or marketing order and identify losses in consumer welfare due to prices that are higher than some unknown market equilibrium price, and even though virtually all the "consumer subsidy equivalents" are negative (Webb et al.), the overall package of farm programs has, over the years, provided an economically stable environment wherein farmers produced abundantly; some would say excessively. This abundance, and a declining portion of household budgets needed to purchase it, has allowed households to increase their well-being through consumption of an ever wider variety of goods and services. Economic growth of the nation itself has depended greatly on the transfer of household expenditures away from food and toward durable goods, health care and high technology.

In moving toward a more market-oriented agriculture, whether by way of public policy or private initiatives, the successes of the past must be maintained. Consumers' first stake in food and agricultural

policy lies in not taking for granted abundant food at reasonable prices.

Food Assistance Programs

Beyond that, what is in the 1995 farm bill that concerns consumers? For the one in ten consumers who receive food stamps and the 24 million children who receive subsidized school lunches, there is a very large stake. For them, changes in funding or delivery methods of this basic economic safety net can make the difference between having adequate food and nutrition and livelihood or not (Kinsey and Smallwood).

Annual federal spending of about $34 billion for food assistance programs is more than half of all expenditures on all food and farm programs. Pressures to reduce the federal budget deficit, to merge these food programs with other welfare delivery systems, and/or to provide cash assistance not tied to food are all serious threats to the status quo of these programs. Initially established to increase the demand for food and agricultural commodities, food assistance programs are now, essentially, poverty programs and can be viewed as investment in human capital. The Food Stamp Program (FSP) is the nation's major noncategorical income assistance program, providing a financial safety net to more than 25 million people. It costs more than $23 billion per year and has been called the country's second currency (Senauer).

In a slowly growing economy that is absorbing numerous immigrants from poor countries; is underinvesting in education and training; and is loath to redistribute cash income, the demand for food assistance programs will only increase. In order to contain delivery costs, new administrative and regulatory efficiencies will have to be found. Using electronic means to transfer food stamp benefits is under study and looks promising. After substantial start up capital costs for computer hardware and software, recipients can use a debit card for groceries at the point-of-purchase. The operating costs are lower than those for printing stamps or writing checks and taxpayers retain their strings on how the money is spent. This is important politically even though money is fungible and even now, with printed stamps, only about $.20 to $.30 out of every food stamp dollar goes to buy more food than recipients would otherwise have (Kinsey and Smallwood).

Food stamp benefits, however delivered, are intimately entangled with other poverty programs, even though designed and administered separately. For example, in the face of uniform federal standards for food stamps, and real increases of about $9.50 per month per recipient between 1980 and 1992, some individual states have cut cash income delivered through programs such as Aid to Families with Dependent Children (AFDC), allowing federal food

stamp money to substitute for state funds. Between 1970 and 1992, real AFDC benefits to a family of three with no other income fell 43 percent in the typical state (Kinsey and Ranney). Today, the average value of AFDC and food stamps *combined* is the same as AFDC benefits *alone* in the 1960s before there were food stamps (Barancik and Shapiro).

AFDC and other cash transfer programs are also experimenting with electronic delivery through ordinary cash (ATM) machines. One might argue that establishing separate (bank) accounts for each transfer program for a single recipient is, at best, inefficient. Thus, new electronic technology, the need to cut administrative costs, the fungibility of money in household budgets, and the behavior of other welfare agencies all combine to push the FSP and other income transfer programs together under one administrative umbrella.

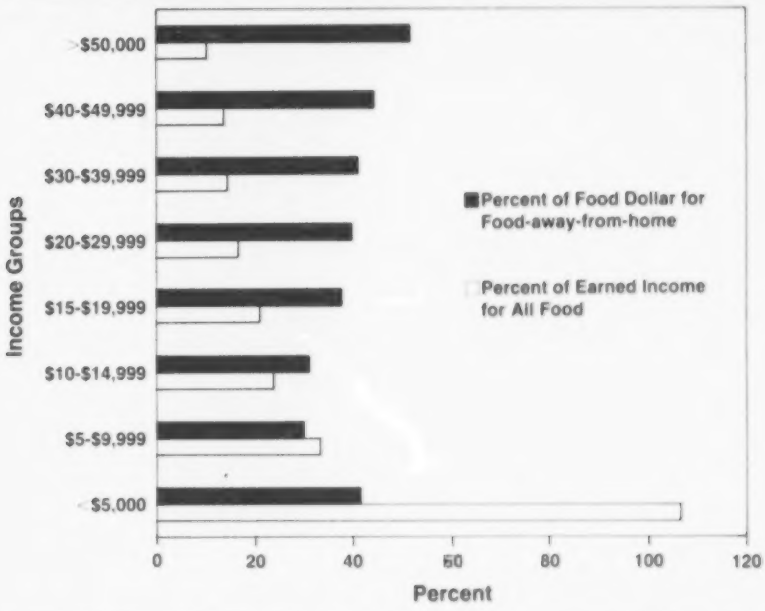
The one unique and endearing feature of food stamps and other food assistance programs is their intent to ensure adequate nutrition to children and poor adults, a factor critical to individuals and to society. Whether this purpose is strong enough and whether its fulfillment is hinged strongly enough to current food programs is questionable. This is not a decision that will be made in the 1995 farm bill, but it is a part of food (and health and welfare) policies that are in transition. It reflects the larger transition in society, in the industry, and in Congress.

In Congress, the urban/rural coalition wherein urban legislators supported farm programs in exchange for farm votes to support urban food programs is collapsing. Food assistance programs have widespread support among both rural and urban legislators. Furthermore, a largely urban population of taxpayers is less sympathetic to transfer payments from middle-income, suburban workers to rural entrepreneurs. So, even though the basic purpose of food and agricultural policy may not have changed, its political support system has changed. All food and agricultural programs will have to be justified to taxpayers whose other priorities are varied and strongly held.

Food Safety, Quality and Regulation

What else is in transition in the food and agricultural sector, and how does it affect consumers? It depends on where you look, where you sit and where you are in the income distribution. Figure 1 uses data from the Consumer Expenditure Survey—1990 to illustrate the percentage of earned income spent for food by income group, and the percentage of food expenditures that go for food-away-from-home (U.S. Department of Labor, Table 2). The poorest group clearly relies on transfer income to purchase food. One can readily see that the percentage of income spent on food falls as income rises and the percentage spent on food-away-from-home (FAFH) rises

Figure 1. U.S. Households Food Expenditures by Income Group, 1990



Source: U.S. Department of Labor

with income. Since the median household income in the United States is now more than $30,000 per year and the median family income is more than $35,000, the last three groups represent half of the households.

If you are a poor consumer, the food assistance issues discussed above are critical and are well within the purview of public policy. If you are not a poor consumer, if you spend less than 15 percent of your household income on food and more than 40 percent of your food budget on FAFH--as do the half of consumers in the United States whose household income is more than $30,000 a year, your concern with food and agricultural policy is not focused on adequacy and price, but on issues of food safety and quality, taxpayers' cost, and the regulation of industry behavior. Since the cost for basic food commodities is less than 24 percent of the cost of food, consumers are legitimately more concerned about costs added by processors and retailers and whether they are justified, given the quality of food and food service received.

Government policies related to food that are of greatest concern to many consumers lie outside the farm bill and may be outside the

purview of the U.S. Department of Agriculture (USDA). Basically, consumers want protection from unsafe food and food additives and ingredients, and they want truthful information about food ingredients and their contributions to health and nutrition. They want to be able to take safety and quality for granted just as they have been able to take food availability for granted. They also expect that pricing practices will not discriminate against the poor or the captive shopper.

The question, as I see it, is less how these consumers will be affected by the 1995 farm bill and more how food and agricultural policies and their regulating agencies will be affected by consumers' demands for safety, quality, taste and convenience in their already abundant food supply.

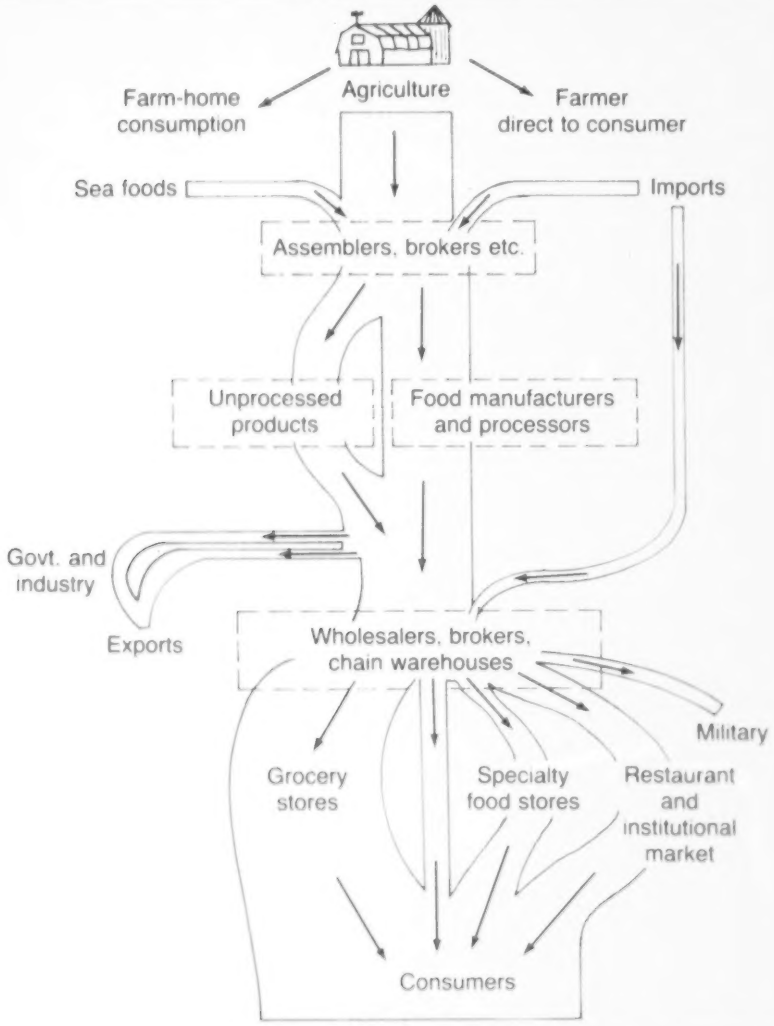
Figure 2 illustrates the food system as it was depicted three decades ago. Farmers are at the top. They produced food that flowed down through a very large processing and distribution system to consumers at grocery stores, institutions and food service establishments. The arrows pointing downward symbolize not only the flow of food, but the direction of decisions and authority in the system. Producers pushed commodities into the system at their discretion, believing their supply would create its own demand. And, for several decades, they were right.

During the 1970s and 1980s, a major transition of this food system began and it is still underway. The top sector, farming, shrank from 13 percent to less than 8 percent of the value added by this industry, with a similar drop in employment. Now, the real decision makers in this system are the retailers who are the closest to consumers' buying behavior. They have become the gatekeepers in the system and, reflecting consumer demand, they have developed considerable power. This means the arrows in Figure 2 are now going the wrong way. The types and quantities of various foods produced and processed are pulled from the bottom. Competition for consumers' food dollars keeps the retailers and their suppliers ever vigilant and the processors who are supplying food to customers' specifications are demanding and contracting for new commodities that match their manufacturing needs.

This fundamental transition, parts of which have been called the "industrialization of agriculture," demands very different public policies and agencies and institutions to protect and inform consumers. It will also require new policies and oversight to ensure domestic agricultural capacity.

To round out these comments about the stake consumers have in food and agricultural policy, broadly applied, I will mention three areas of particular concern that have major implications for how policy is conducted. The three areas are: 1) food safety; 2) nutrition knowledge and information; and 3) intellectual property and private property rights to food technology.

Figure 2. Food System 1966



Source: National Commission on Food Marketing

Food Safety

Food safety encompasses and consumes the entire industry. Food is nothing, if not safe. It is the responsibility of public agencies to ensure safe food by any reasonable means. It is an area fraught with

competing perceptions of risk, competing scientific theories, competing technology, competing government agencies and, seemingly, competing messages from consumers. For example, in its 1992 consumer survey, the Food Marketing Institute found 76 percent of consumers believed pesticide and herbicide residues were a serious health hazard, but 72 percent were completely or mostly confident that the U.S. food supply was safe. I suggest consumers are correct on both counts. The challenge is to earn and sustain that high level of confidence in the safety of the food supply by striving for more consistent public policies and more believable scientific studies. Agencies that appear to be controlled by the industries they regulate do not inspire consumer confidence. Confidence that government agencies can and will respond to safety crises and, better yet, will vigilantly prevent unsafe food from reaching the market, is what consumers want. If that means moving the responsibility for food safety (inspection) out of USDA, so be it. If it means combining the functions of the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA) and USDA to rationalize the use and regulation of pesticides, so be it. If it means shifting research funds, so be it. The food safety issue will not go away as affluent and educated consumers demand higher and higher safety standards and higher performance from their public officials.

Nutritional Information

The second issue is nutritional knowledge and information. Traditionally, USDA's Health and Nutrition Information Service has surveyed consumers' food expenditures and intake in order to learn the state of the nutritional health of the population and particularly the poor. Knowing the nutritional content of an ever-growing number of foods and of total diets is of increasing interest and importance to all consumers concerned as much with overconsumption of fats, cholesterol and sodium as with the underconsumption of essential vitamins and minerals. If this knowledge base is to be continued and kept up to date, major dollars will be needed to expand the survey and research scope and capacity. Collecting food intake data from busy consumers, even with compensation, is increasingly difficult; new survey methods will need to be explored. Ignoring details about snacks and foods eaten away from home is no longer acceptable since they are a major part of today's diet.

In a well-fed population, it may be tempting to take nutritional adequacy for granted; to stop detailed investigation into diets and foods. This would be a mistake. It is exactly this type of a credible watchdog activity that keeps highly competitive businesses in line. Monitoring the nutritional composition of new and old foods and peoples' diets may not be the stuff of best-selling novels, but it is the stuff of a well-fed, healthy and productive population.

Research Policy

The third and last issue also has to do with public research and product development. As private companies, competing for market share, engage in a larger portion of the basic and applied research that produces new food production and processing technologies and new foods, this knowledge will be patented and/or privately held. Fewer scientists working in the public sector will have access to this knowledge or they might be silenced through private funding contracts. Public funding for parallel, even duplicative, research in public institutions is essential to future agricultural production and processing capacity. Why? Because privately held knowledge can be lost, deliberately destroyed or otherwise abused and exploited. Academic thinkers disagree about how important this is but unshared knowledge gives the companies that have it considerable market and pricing power. It also inhibits the public sector in its role of assuring safety and quality. For a basic need like food, some mechanisms to ensure public access to scientific findings and technologies are truly a public good. Research and development funding, patent and licensing policy, food safety and quality policy, and anti-trust policy will all be needed to address this issue.

Conclusions

There are certainly other issues that concern consumers, i.e., the environment; air and water pollution; wildlife, forest and wetland preservation; cruelty to animals; and other causes that impinge on the food and agricultural industry. Their omission here is not meant to minimize their importance, but to enable concentration on those issues that identify the stake consumers have in and around the 1995 farm bill. The making and executing of public policy is largely for the protection of consumers and citizens and their common good. In this era, with a transformed food and agricultural industry, specific issues that affect or are affected by consumers can be summarized as:

1. Maintaining efficient food and agricultural production, processing and distribution in order to maintain an adequate and safe food supply at reasonable prices.

2. Food assistance policy and funding. For poor consumers, it is their livelihood; for non-poor consumers, it is an issue of minimizing tax dollars spent on administration and non-essential payments. It is also an important investment in a productive society.

3. Higher and more consistent standards for food safety will continue to be high profile issues. Consumers will also expect higher and more consistent performance from government policies and regulations.

4. Better scientific information about nutritional content of foods and total diets will continue to be needed.

5. Public research funding will be needed to ensure public ownership of knowledge about how to produce and process food in the future and to assure its quality.

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ENVIRONMENTAL INTERESTS IN THE 1995 FARM BILL

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The 1985 and 1990 farm bills were touted as environmental farm bills long before their actual provisions were put to paper. As we approach 1995, there is much less posturing about the "greenness" of the upcoming farm bill. There are two main reasons for this less boisterous stance.

First, there is no longer anything new or unique about environmental quality playing a major role in farm legislation. It has become institutionalized. The conservation and environment title is routinely considered one of the big ticket items in the farm bill debate. And the environmental groups who act as proponents for a greener farm bill are part of the farm legislation establishment; they are no longer considered outsiders, even if some of the more traditional agricultural interests continue to see them as interlopers.

Second, the tight budget constraints reviewed by Daft in this proceedings are putting a damper on enthusiasm about the 1995 farm bill's potential for impact on environmental quality. There is widespread recognition that it is highly unlikely new environmental programs under the farm bill will be instituted with new appropriations. Any gains in the environmental inroads made by the farm bill must then come either from improvements in existing programs or from reductions in one program's budget as fuel for a new initiative. The prospect of programmatic tradeoffs is daunting.

Before getting into the particular environmental issues framing the debate on this aspect of the farm bill, I will review some of the factors that, in addition to fiscal austerity, are forming the backdrop for the farm bill's environmental provisions.

Some Features of the Political Backdrop

The Conservation Reserve Program (CRP) will begin expiring in 1996. Under anticipated market conditions, a majority of the 36 million acres now in the reserve is expected to go back into production by the end of the program. The CRP's cost is not factored into long-run, government budget projections. Thus, its expiration means an end to its independent contributions to soil conservation, wildlife habitat, and water quality unless new appropriations are made or

funds for its continuation are transferred from other existing programs.

Farm programs are expected, over time, to offer less incentive for compliance with conservation provisions by farmers. As program budget cuts and a trend toward a more market-oriented sector continue, the payoff for farmers' participation in commodity programs diminishes and, consequently, the effectiveness of associated conservation compliance, sodbuster and swampbuster provisions of existing legislation is reduced.

Environmental concerns are different and broader than those addressed by farm bill programs authorized by earlier legislation. Soil erosion is not now a major concern, except as it relates to water quality. A recent report by the National Research Council refocuses attention to soil quality as the soil-based issue. But topping the list of environmental issues of contemporary concern are surface and ground water quality, wildlife and habitat protection, wetlands protection, and pesticide risks.

The new (and somewhat sudden) predominance of an ecological philosophy of agricultural resource management reflects the multiplication of environmental concerns related to agriculture. Private conservation interests, as well as the Soil Conservation Service, appear to be favoring total farm resource planning and watershed management as mechanisms for simultaneously addressing multiple environmental objectives (e.g., see Bridge). This new philosophy and its complement of techniques pervade much of the program proposing and planning that are preceding the writing of next year's farm bill.

Finally, it appears the Clean Water Act (CWA) will not be reauthorized before the 1995 farm bill takes shape. Because the CWA's reauthorization will focus on nonpoint sources of water pollution (the majority of which are agricultural), many are viewing the farm bill as a bellwether of, or stimulant for, action on CWA reauthorization. This means the range of farm bill environmental stakeholders is somewhat expanded and the ante is upped for some existing stakeholders.

A Spectrum of Environmental Issues and Policy Options

Against this backdrop are a number of specific farm bill environmental issues that appear to be shared by a wide range of involved groups. Here, I briefly review four major sets of issues and highlight the range of perspectives that seem to be developing on each of them.

A first major issue is, not surprisingly, the extension and/or modification of the CRP to preserve the current environmental benefits of land retirement at a substantially reduced cost. There seems to be a

developing consensus on the need for a small and finely-targeted long-term land retirement program. But perspectives differ greatly with regard to the particular environmental goal toward which a reduced CRP should be targeted. Principal candidates for targeting appear to be wetlands protection, water quality improvement and wildlife habitat protection. The greatest investment in this policy option comes from groups whose interests are better met by land retirement than by changes in farm practices. This would include, importantly, those groups concerned with wildlife management and habitat preservation.

Given the evolving environmental foci of efforts to establish a small, ongoing CRP, one might easily anticipate that the Great Plains region will be least likely to retain CRP benefits over the long run. However, in order to design a new program with enhanced probability of political support, the distributional implications of CRP modification are being explored by assessing the degree of overlap between geographic areas in which land retirement meets specific environmental goals and politically powerful areas in which the CRP's discontinuation means a significant loss of government support.

A second set of much discussed environmental policy options falls under the rubric of "green payment programs." Green payment programs are a large class of voluntary programs under which direct farm income support payments would be made in return for actions that protect or enhance environmental quality. The thing that distinguishes this concept from current programs, such as the Water Quality Incentives Program, is that green payments are being discussed as a new, fundamental basis for farm income support. Conceptually, green payments can be coupled with commodity programs to marginally redirect farm income support away from exclusive dependence on commodity supply and price control; they can exist separately from, but along with, commodity programs; or they could replace commodity programs as a basis for farm income support that would, in theory, be both less market distorting and more socially acceptable than current mechanisms. Options that fit into each of these categories are now being developed for possible promotion within the farm bill context.

One particularly complex aspect of designing a green payment program is the determination of the relative weight to be placed on the program's achievement of income support for some specified group of producers, vis-a- vis the weight placed upon resolution or prevention of a specific environmental problem or problems (Lynch and Smith). Because the geographical distribution of environmental problems associated with agriculture does not perfectly match the current distribution of government payments for income support, or any measure of producers' income dependence on the government, no truly multiple-objective green payments program can be ex-

pected to simultaneously retain current income support patterns and address an environmental objective in an optimal manner. The magnitude of the trade-offs among the objectives will be a large factor in determining the eventual political feasibility of green payment program options.

A third set of issues involves pesticide use or risk reduction. While most of what is being done in this area relates to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), or to the Food, Drug and Cosmetics Act, several proposals are being made within the context of the farm bill. One proposal would extend the current requirement that all uses of *restricted-use* pesticides be recorded and reported to cover reporting of *all* pesticides and uses. Another proposal is that a specific goal for pesticide use or pesticide risk reduction be codified for the U.S. Department of Agriculture (USDA) in program authorizing legislation. While some debate continues on what this goal ought to be, and whether it is expressed in terms of reducing use or reducing risk—two very different things—the most common expression of the desired goal is a 50 percent reduction in pesticide use. This goal setting neither suggests nor would require a uniform 50 percent reduction of every material's use over every commodity on which use occurs. In fact, it does not even require that the goal be achieved. The idea is that the USDA would have to systematically organize and direct its research, extension and action program resources toward that goal and report periodically on progress. It is designed as an administrative incentive. The USDA, theoretically in collaboration with the Environmental Protection Agency (EPA) and the Food and Drug Administration (FDA), would design the mechanisms for inducing both behavioral and technological change leading to profitable reductions in pesticide use or risk. An August, 1994, agreement between the secretary of agriculture and the EPA administrator to collaborate in this regard takes some of the wind out of this as a farm bill issue, but does not in any way eliminate it.

The final issue I will review concerns the direction of research and extension funds. There is an unprecedented amount of attention being paid by the environmental-conservation-sustainable agriculture communities to the nature of the research agenda-setting processes guiding the allocation of USDA funds to particular topics and research goals. At issue is the extent to which research and extension funds are allocated to efforts that are likely to support environmental enhancement, resource conservation, and sustainable agriculture systems. Policy proposals currently in process mainly address administrative processes by which research and education programs are coordinated, and/or the way topics guiding the distribution of discretionary research funds are selected. There is a growing feeling that research and education policy could partially alleviate long-run conservation budget constraints by directing funds toward the development and transfer of technologies that could prof-

itably replace conservation and environmental protection measures whose adoption by farmers now requires government subsidization.

Conclusion

In conclusion, it is impossible to guess at this point about the degree to which the 1995 farm bill is going to be "greened up." But there is no question that new and innovative approaches to resource conservation and environmental quality in the farm bill context are being discussed. Those that do not make their way into the 1995 farm bill will certainly be revisited before the year 2000.

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Building Human Capital—Reforming Education

HUMAN CAPITAL: THE ISSUES, ENABLERS AND BLOCKS IN INSTITUTIONAL CHANGE

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The past decade has produced almost unprecedented rates of job growth and improvements in adult education attainment. Yet, during the same decade those trends were joined by substantial increases in the number of children living below the poverty line and declining real income for a majority of families despite an increased number of generally better-educated workers per family.

Insofar as the prevailing political definition of human capital is limited to educational attainment and/or job-acquired experience and training, the U.S. work force is improving as rapidly now as it did during the so-called golden years of the 1950s and 1960s (Packer). Indeed, human capital investments today exceed net annual investments in plant and equipment (Vaughan, p. 2). On the surface it appears that stable or stagnant rates of productivity growth and declining real income for many workers must be the result of less effective investments in knowledge, physical and human capital. In the words of Packer, ". . . it is possible that schooling is less valuable today because the student body and the economy have changed much more quickly than the education and training system have adapted to these new realities" (Packer, p. 54).

This paper will focus on several possible explanations: 1) a kind of job growth that is producing disincentives for a significant number of individuals and families to invest in human capital; 2) an excessively narrow public and political definition of human capital and, therefore, less-than-optimal human capital investments; and 3) the absence of a mutually reinforcing "mix" of institutions (policies) that would provide greater incentives for public and private human capital investments and produce a greater return on investments made.

The title assigned to this presentation specifies two objects of inquiry: human capital and institutional change. The title also implies that society's needs for human capital are not being met and that institutional change is necessary in order to satisfy that need. More of the same is not doing the job.

But both human capital and institutional change are rather vague and abstract concepts, although, as operationally defined in policies, they have taken on excessively specific and tangible meanings, e.g., human capital continues to be equated with number of years of

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school completed and institutional change has taken the form of a complementary emphasis on school reform. Perhaps exemplified by the notorious report, *Nation at Risk*, a view has prevailed that the nation's economic competitiveness is linked to the performance of its educational system; therefore, if the nation is less economically competitive in a global context, the educational system must be failing.

We will present a view that human capital and institutional change are concepts vital to the future well-being of citizens, communities and the nation, but that their narrow policy definition is constraining the production of necessary human capital and the institutional change necessary to achieve that production.

Toward Broadening the Definition of the Problem

The contributions of Douglas North to improving our understanding of the historical connection between societal institutions and economic performance have been recognized by his recent receipt of the Nobel prize for economics. We will borrow some of North's basic ideas in analyzing who is producing human capital, how it is being defined, and what that has to do with institutional change.

Beliefs of a people are the foundation of a society and these beliefs are enacted through, and embodied in, institutions that constrain some actions and reward others (North). The institutions of a society are interrelated and it is the "mix" of institutions at any time in history that defines the incentive structure of a society and, therefore, affects the economic performance and relative well-being of societies.

In North's perspective, societies throughout history can be described as being either "learning" or "stuck." According to North, "Societies that get stuck embody belief systems and institutions that fail to confront and solve new problems of societal complexity" (North, p. 15). Historically, stuck societies and economies have been more prevalent than learning societies. Learning societies, in North's view, are somewhat analogous to what other historians have called "creative epochs"—periods of institutional change, creativity and vibrant economic performance. Pertinent here is the idea that it is the "mix" of institutions, not any single institution alone, that determines whether a society is in a learning or a stuck mode.

In North's view, societal institutions are analogous to the rules that provide the competitive framework for any team sport. Organizations are analogous to the teams that play the game and the strategies they devise for competing within the constraints established by the institutions. It is learning by individuals and organizational entrepreneurs that is the most fundamental source of institutional change (North, p. 9). The rate of learning determines the rate of change. As a result of learning, organizations devise competitive strategies that test the limits of institutional constraints. The actions of organizations are the source of innovation and, over time, institu-

tional change. We will return to this point in emphasizing the role of individual schools (the organizations) in producing innovations having the potential of contributing to change of the education institution.

Taking a cue from North, we will contend that the human capital issue is largely one of institutional reform/restructuring, not just of "improving" education and/or human capital market imperfections. There is much evidence that contemporary human-capital-producing institutions are stuck and embody a set of beliefs out of touch with current economic and social realities. As this paper emphasizes, there are many widely-held beliefs about public education, schools and student performance that are inconsistent with accumulated research. Much research and analysis can be found asserting that we know how to do things better.

In responding to the assigned title, we will not differentiate between issues and blocks to institutional change because we regard the blocks as the issues. The paper will, however, conclude with some directions that public policy and communities could take to improve human capital production and well-being.

Issues and Blocks to Institutional Change

For policy purposes human capital is too narrowly defined and conceptualized.

> Incentives embodied in belief systems as expressed in institutions determine economic performance through time and however we wish to define economic performance, the historical record is clear (North, p. 16).

Since elaboration and quantification of the human capital concept in the literature during the 1960s, human capital has been widely equated with number of years of schooling completed. Correspondingly, schools and other training agencies have been interpreted to be the principal producers of human capital. Although some emphasize that those skills and abilities rewarded in the form of higher earnings are actually acquired on the job, schooling still plays a role as a screening mechanism for who is hired for what kinds of on-the-job training. The equation is reinforced by both past and present research which continues to show a clear correlation between educational attainment and earnings. Accordingly, that belief has been sustained in public policy and education and training have been viewed as the nation's human capital investment strategy and school reform as the necessary institutional change to improve human capital production.

As concern for national economic performance has escalated, so too has public and political insistence on school reform. Criticism of public schools has been pervasive (Faux). Accordingly, the 1980s

produced a spate of educational reforms in state legislatures across the country (Vold and DeVitis) and spending on public schools increased in real terms. But despite the enacted reforms and increased spending, little improvement in traditional measures (test scores and dropout rates) of public education performance has occurred.

The Role of Family, Community and Support Services

The failure of reforms and increased funding to be matched by improved performance led to a search beyond the school for reasons and they have been found. It has been found that changes in families and communities and the distribution of income cannot be separated from students' performance in school. Poor children, for a wide variety of reasons, including health and nutrition, carry deficits with them to school and they greatly affect performance. In the words of Ernest Boyer, "Education problems cannot be divorced from the problems of the poor" (p. 182). More directly, in an extensive review of the productivity-of-schooling literature, Ganderton and Griffin find strong support for the hypothesis that, "the primary sources of variations in the rate of return to education are the variations in child quality" (p. 40). They also find that child quality measures have a greater impact on the rates of return to education for minority groups than for whites; conditions within the family play a larger role in determining educational success in minority families than in white families.

Broadening the Definition of Human Capital

These, and an impressive body of research documenting the effect of social deficits on the production of human capital, have led some researchers to extend the concept of capital to refer to social capital (Coleman) and cultural capital. These concepts have been coined in an effort to conceptualize the significant role of family and community in affecting school performance and, eventually, the production of human capital. An effect of the research and further conceptualization has been to broaden the concept of human capital and, therefore, potentially the range of public policies having a role to play in producing it.

Salamon offers such a broadened definition:

> Conceptually anything that contributes to population quality can be considered a form of human capital, particularly if it extends the useful life of the human capital stock or otherwise enhances the ability of people to contribute to the production process. These improvements in nutrition, in health, in housing, and in the quality of life generally can be considered forms of human capital (p. 6).

Such a definition is not simply academic; it is pertinent to how and what public policies are considered an integral part of human capital development. It also implies consideration of what human capital investments are likely to produce the greatest returns and, further, as we elaborate in the next section, a need for human capital investment strategies that place greater emphasis on coordination and linkage among the suppliers of services that are known to be pertinent to eventual human capital production.

The problems of public education are embedded in the "mix" of institutions in the society. Some analysts see the preoccupation with the failures of public schools as a way of avoiding confronting broader social problems (Vold and DeVitis, p. 7). As suggested by Passow, "Reforming schools is very different from reforming society. . . . (but) Both must occur simultaneously if real reform is to take place" (p. 683). Or Boyer states it more succinctly: ". . . we must realize that schools cannot do the job alone" (p. 190).

What Human Capital Is Needed?

Creating the conditions for a higher proportion of children to succeed in school is but one part of modifying the policy perspective on human capital production. Another issue concerns moving human capital away from a catch-all abstraction to a tangible and operational set of qualities, skills and competencies most likely to contribute to economic productivity and individual well-being of future workers. What skills and abilities does society need? Is our educational system producing human capital pertinent to the contemporary economic environment or is it simply producing graduates? There is public concern not only about whether students complete school, but what abilities and capacities they take with them when they do. If necessary human capital is to be produced then it must be specified. A curriculum composed of courses or Carnegie units may produce graduates, but may not produce economically-productive competencies.

In the division of labor with other institutions in producing human capital, Boyer sees the role of schools as:

> Empowering the nation's youth means helping them to become proficient in the written and spoken word, learn to think quantitatively, acquire a core of essential knowledge, develop the capacity to think creatively, and in the end, relate activities in the classroom to the realities of life. This is the investment in human capital schools must make. It is an investment that will secure the civic and economic future of the nation (p. 182).

Although it would be difficult to find any educator, or very few citizens for that matter, who would disagree with that specification, it remains more an aspiration than a reality. A part of the problem lies in an absence of effective measures of educational outcomes (and,

by extension, human capital). Most of our human capital development systems are framed primarily around inputs, not outcomes. Although flawed on many counts, there continues to be widespread use of norm-referenced standardized tests as measures of outcomes. To a great extent, school reform has been delayed by a preoccupation with raising test scores.

Beyond traditional forms of education and training, other forms of human capital are coming to be appreciated as important inputs to new forms of economic development. In recent years numerous research studies have documented the importance of *leadership* and *entrepreneurship* to the economic development of rural localities. Training to produce such capacities has become an integral part of many rural development strategies. Pertinent also is the role of education in producing an informed citizenry capable of being participants and making contributions to a learning society. That is an essential component of community development and the organizational entrepreneurship necessary for institutional change.

A Human Capital Deficit or Surplus?

Without further specification of what is meant by human capital (beyond completing a certain number of years of schooling) it is difficult to assess whether the supply of human capital is deficient. There are those who contend there is already a substantial amount of overeducation for jobs that are available. That is especially true in rural areas, a factor contributing to the continuing high rate of outmigration from many rural regions. Sizer-Killian and Beaulieu report from their research that almost a quarter of nonmetro workers had attained higher levels of education than were needed to carry out their job responsibilities. Similarly, Mishel and Teixeira, in their analysis of the *Workforce 2000* report, state, ". . . there is no evidence that large-scale job enrichment is taking place" (p. 1). McGranahan and Ghelfi report that the rate of increase in job-related educational requirements was somewhat lower in the 1980s than in the 1970s.

Overeducation, however, is not a recent phenomenon. Berg found that educational attainment actually exceeded job requirements in most job categories in the United States by the late 1960s. He emphasized that education may be more important as a credential for getting a job rather than a requirement for performing a job—a factor that works against those who lack educational credentials although not necessarily the ability to perform.

Measurement and assessment of human capital has also been complicated by recent growth of service sector employment. While increasing productivity and efficiency in, say, health and education services is essential, it is more difficult to conceptualize and measure. Education, for example, has been remarkably resistant to tech-

nological advance—along with social work it is the most labor intensive sector of the economy. In terms of national productivity, Packer comments that, ". . . improving the productivity of nurses and teachers and hospital and school administrators is as important as increasing the output of factory workers. Our international competitiveness will be undermined if health care costs continue to escalate and schools continue to fail one-fourth of their students, just as surely as if factories fail to modernize" (pp. 57-58).

Research, New Knowledge As Components of Human Capital

An essential part of a human capital investment strategy is investments in the discovery and application of new technologies that combine with human capital to increase productivity. Nevertheless, the number of people entering scientific fields of study has declined markedly in recent years as has the general science literacy of the nation's student body (Salamon, p. 25).

The development of comprehensive and integrated human capital development policies and strategies will be retarded unless the concept of human capital is broadened and made more operationally specific at the same time. At present it is arguable whether human capital investments are in excess of the requirements of available jobs or whether a human capital deficit is a limiting condition in creation of more highly productive employment and a learning society.

There is a lack of coordination and linkage among the suppliers of services that produce human capital and between human capital production and economic development.

As important as identifying the necessary components of a human development investment strategy, is articulating those components. Our strategies are not integrated in any one sector, let alone being integrated across sectors. With regard to education there is a widespread conviction that education continues to fail because approaches to school reform have been piecemeal rather than coherent (Boyer). Boyer comments that today's reform movement is not systematic; it is best described as a strategy of "excellence by exception." Reforms have worked to a degree in schools that were already performing reasonably well; they have generally failed in poorer schools and those serving disadvantaged populations.

But even if there were more coherent school reform strategies, they would not, as noted above, likely be sufficient to overcome the deficits that affect a growing proportion of students. It is increasingly clear that single service institutions alone cannot produce the quality and quantity of human capital the nation needs (Hornbeck). Although substantial investments are being made in human services and schools have been implored to provide more social services,

those services are not coordinated and, therefore, many needs are unmet.

The problem of coordination is further exacerbated by an evolution of American federalism. Although logic dictates that a human capital investment strategy should be the responsibility of the federal government because of the mobility of human capital, states have the primary responsibility for human resource policies while the national government has responsibility for economic policy.

Human Capital and Economic Development

Roger Vaughan observes that the failure to coordinate education and economic development policy will become increasingly costly as human capital investments become more critical to economic productivity and competitiveness.

Most localities, including smaller rural localities, have some organized economic development effort. However, even at the small community level there is little history of coordination of human capital investments, social service provision and economic development efforts. Given the relative absence of higher-paying, higher-skill employment in rural areas (Sizer-Killian and Beaulieu) and the mobility of human capital, rural localities have greater difficulty capturing a return on their human capital investments. It is at this level where greater coordination of economic development efforts with education and training investments could be most immediately effective. Indeed, given the current structure of employment in rural areas, Sizer-Killian and Beaulieu advocate that rural development efforts that focus on expanding and upgrading the job structure are more critical than are efforts to invest in more human capital (p. 38).

Development of a coherent human capital investment strategy linked with economic development strategies is further compounded by the complexity and number of players in the policy arena. In elementary and secondary education alone there are more than 20,000 independent decision policymaking bodies. Together, states and localities account for 94 percent of the financial support for elementary and secondary education.

Although our frame of reference is largely state and national policies, the educational division of labor between states and localities makes coordination at the local level just as critical if not more so. Nationwide, localities invest more than 40 percent of the total cost of elementary and secondary education and a lesser but still significant amount of the budget for community colleges and vocational schools.

Specificity of goals.

Notwithstanding the existence of Goals 2000 that emerged from the 1990 White House Conference on Education, a political, public

and education consensus about the outcomes expected from public schools has not emerged. Given the absence of well-defined goals, it has been difficult to determine if progress is occurring. Further, from the perspective of this paper, it is even more difficult to know whether human capital, pertinent to the competitive environment of the 1990s and beyond, is being produced.

There is a widespread conviction that more money should be spent on human capital development. But absent effective outcome measures, we lack criteria to know if we are spending too little money for human capital development; too much; or whether what we are spending money for is effective (Deller and Rudnicki). When the different components of human capital production discussed above are aggregated, investments continue to shrink in real dollars. But knowing whether the investments being made are producing a satisfactory return awaits development of improved outcome measures. An indication of this dilemma can be found in the relationship between expenditures per student and student performance (test scores). Across numerous studies, that relationship produces a generally positive but weak correlation (Hanushek, 1981; Walberg and Fowler). In reviewing one hundred forty-seven studies of educational production functions, Hanushek found fewer than 10 percent of the studies reported statistically significant positive relationships between such variables as teacher-pupil ratio; teacher education; teacher experience; teacher salary; test scores; and other outcomes. That is not an indication we are spending too much for education, but rather that for which we are spending money has relatively direct little effect on learning (Deller and Rudnicki).

The tension between political efforts aimed at greater standardization of education to improve accountability, and the flexibility and site-based management necessary for effective educational innovation.

There are two opposing perspectives affecting public education in American society, with persuasive arguments and strong proponents available to support each side. Reform efforts have generally concentrated on two fundamentally contradictory courses: 1) greater centralization, standardization and regulation of schools and 2) encouraging innovations in the content and procedures of education. Greater centralization emphasizes greater state and federal control in an effort to uniformly improve performance. Innovation, on the other hand, places an emphasis on flexibility, site-based management and local control. Both are occurring simultaneously and exacerbating a confusion of goals—a schizophrenic situation for school administrators (Boyd).

Effective school reform will require striking a balance between the two. Both are necessary and need not be contradictory but they are. There is agreement among many education scholars that the states and nation should take the lead in setting key values, parameters and outcomes (e.g., Boyd; Boyer; Hornbeck) and local schools

should be held accountable for achieving those outcomes. But while overall objectives should be established at the state and national level, how those objectives are achieved should be a matter of substantial local discretion. As suggested by Hornbeck, ". . . what we teach should be basically the same for all students in the sense that it is commonly challenging. But how we teach, when school is in session, where teaching and learning occurs, and who teaches should be variables" (p. 375). Such a division of labor greatly increases the probability of education adapting to very different populations of students with very different needs and also exploiting educational opportunities in the local environment. In effect, such freedom is an essential component of educationally-effective innovation. Effective schools have been found to be those with strong educational leadership at the building level (site-based management). But, again, there is an emphasis and measurement problem. Public education policy has been preoccupied with inputs, not with outcomes. There are many reasons, not the least of which is that inputs have been more easily measured and supported with resources than outcomes. Ray Marshall has observed that any organization tends to get back pretty much what it measures and rewards. That observation applies to nothing so much as public education.

As emphasized above, outcomes have been largely limited to evaluation of norm-referenced standardized test scores. Vold and DeVitis have observed that, ". . . whatever leads to an improvement in test scores is assumed to constitute reform" (p. 5). High on the agenda of public policy should be devising a broader range of more informative and practically valuable outcome measures. Boyer observes that the school reform movement is failing not just from lack of direction, but from confusion about how to measure results.

But in the absence of such measures, state school reform efforts have focused more on standardizing and regulating inputs than outputs—a trend counter-productive to effective educational innovation at the local level. The emphasis needs to be reversed. Schools should be held accountable for results, not hassled by regulations pertaining to procedures (Boyer).

For large numbers of today's students, there is a growing lack of incentive to make human capital investments in themselves.

> Poverty and social decay, pressures on family life, the demands of the burgeoning service sector for low-wage teenage labor, television and other cultural diversions, and the indifference of employers to educational achievement reduces [sic] incentives for students to perform in school (Faux, p. 12).

Vaughan observes that the growing demand for better-educated workers and the increased rate of return to education may create a dual labor market in which the earnings of the well-educated grow rapidly while the earnings of the less-educated fall. These trends

have occurred concurrently with a dramatic growth in demand for consumer services workers. That growth, coupled with a demographic dip in the number of entry level workers during the 1980s, added momentum to the emergence of a dual economy.

About 750,000 students drop out of school each year and this has generally been interpreted as a further indication of failure of the educational system. However, the combination of a smaller cohort of entry level workers and the 1980s growth in service sector employment seems to be more responsible than what does or does not occur in school. If jobs are not available that utilize and reward higher levels of education, then, for the student with no plans for post-secondary education, there are short-run opportunity costs associated with remaining in school. These, however, are workers whose abilities and earnings will not only affect their own life chances in later years, but also affect the future performance of the nation's economy.

Supporting evidence of the influence of the economy on dropouts is provided by Killian and Parker's analysis of the relationship between educational attainment of the work force and job growth in the United States during the 1970s and 1980s. They found no significant relationship between average educational attainment of workers and job growth in either metro or non-metro areas. However, they did find that in metro areas during the 1980s, job growth was related to the proportion of college graduates in the population and *the proportion of school dropouts*. The greater the job growth, the higher the percentage of school dropouts. Our own analysis shows that poverty status and local job growth account for equal proportions of the school dropout variance nationally. The lowest school dropout rates are found in the rural upper Midwest where job growth was slow and even negative during the 1980s.

There are significant discrepancies between public and political beliefs about human capital and how it is acquired and accumulated research results.

Society casts its schools in its own image (Vold and DeVitis, p. 155).

> Belief structures get transformed into societal and economic structures by institutions—both formal rules and informal norms of behavior . . . .Mental models are the internal representations that individual cognitive systems create to interpret the environment; institutions are the external (to the mind) mechanisms individuals create to structure and order the environment (North, pp. 12-13).

As North contends, beliefs are the foundation of the institutions that structure social and economic performance. U.S. public education is one of those institutions and it embodies a broad range of be-

liefs, some of which have been rendered invalid by recent changes in other institutions. Packer (p. 46) is one of many who emphasize that our human resource challenge has changed while the way we educate and train children and adults has not. Our ways of educating are not intentionally flawed or without foundation. Indeed they are generally based on premises accepted as valid by both educators and the public and they were most likely valid at one time. Those beliefs apply to both educational methods and content—there has been hardly any change in educational curricula this century and there is substantial evidence that there is a focus on providing skills and socialization for an economy that no longer exists.

One of the more fundamental beliefs concerns public and individual responsibility for education and training. Hornbeck states that belief as follows:

> We have constructed social policies on the premise of equality of opportunity and, if the individual fails to take advantage of that opportunity, it is his tough luck. To assume the contrary, that the failure of students to perform strikes at the heart of the nation's survival, not just the individual's well-being, is to change radically the character of the legislation (Hornbeck, p. 369).

This belief, firmly embedded in the traditional American value placed on individualism, presents a potential threat not just to individual well-being, but to collective well-being as well. As suggested by Thurow, "To work, modern economies need a mass well-educated labor force. An educated elite does not suffice. Illiteracy hurts the literate" (p. 187).

In reviewing the literature I have encountered numerous authors who state, in effect, that ignorance is not the problem with regard to school reform, it is a matter of acting on what we know. I recently shared a program with the dean of our college of education who entitled his remarks, "We Can No Longer Pretend Not to Know What We Know." What do we know that we are not acting on? Following is but a sample of things we know, but which have not yet served as a basis for institutional restructuring.

- We know that the future cost to society of children born to mothers who received inadequate prenatal care are great in terms of substandard school performance, expensive health care, social services, etc.
- We know that standardized tests are culturally biased and are not an effective measure of a person's job-related abilities or, for that matter, their ability to learn how to learn.
- We know that preschool programs such as Head Start enable disadvantaged children to do better in school and that return on the investment is great.

- We know that the social capital investments in children before beginning school produce an impressive return in terms of school performance and obviating other downstream social costs.
- We know that there are young people graduating from high school who are capable of college and other post-secondary education but cannot afford it.
- We know that in order for students to effectively learn how to learn requires an active rather than passive role—education and learning are most effective when they extend beyond the walls of classrooms.
- We know that effective schools are ones in which there is strong educational leadership and a great deal of flexibility to adapt learning to the needs of particular groups of students.
- We know that exposure to a given subject matter for a specified period of time is not a substitute for mastering that subject matter.
- We know there is little or no return on human capital investments unless there are jobs that use and reward higher levels of skill and training.
- We know that the aggregate amount of human capital investments and returns on those investments are greater in primary than in secondary industries and sectors.

These are but a small sample of what is known about the interrelationship of education, learning and production of human capital. But until such time as many existing political and public beliefs about education are replaced by some of the above, there is little likelihood of fundamental change in the institution of education. We are stuck with a set of beliefs that shape choices and limit institutional change.

Demographic change and change in the workforce.

There are education commentators who observe that America is not reacting to the education crisis with a sufficient sense of urgency (e.g., Boyer; Hornbeck). If there were no other compelling reason, pending demographic changes supply one. Although there are many demographic changes affecting the production of human capital, we will concentrate on two: 1) the current and expected changes in the composition of the work force and 2) projected changes in the age distribution and household composition of the population.

Packer observes that the labor force of 2010, "... will have to carry a triple burden: supporting themselves and their own children; supporting the elderly who depend on social security and private health and pension plans; and, carrying the banner of the United States in foreign competition" (p. 46). But that labor force will have a

substantially different appearance because the baby boomers who will begin exiting the work force by 2010 or before will be composed predominantly of white males. They will be disproportionately replaced by minorities, women and (depending on U.S. policies) immigrants. That process is already underway. According to the Hudson Institute's *Workforce 2000* (Packer, 1990), additions to the U.S. workforce between 1985 and 2000 will be distributed as follows: U.S. white males 16 percent, U.S. white females 42 percent, U.S. minorities 20 percent, and immigrants to the U.S. 22 percent. To a substantial degree, the baby boom generation will be replaced by workers whom the present system of human capital production has served least well.

A further indication of these changes is the projection that by 2000, nearly one-third of school-age children will be from minority populations. An uncertainty in these projections is the size of the immigrant cohort and whether immigration laws will be changed as a shortage of entry level workers occurs early in the next century. Ray Marshall is among those who recommend tightening our immigration policies to impose labor market tests on immigrants and at the same time integrating existing immigrants into American society as quickly as possible.

The aging baby boom generation, in addition to the effect their exit will have on the composition of the work force, is contributing to a substantial change in the household composition of the population. Married couples with children currently account for only 26 percent of all households and that proportion is destined to decline. By 2000, non-family households will account for 32 percent of all households. An important issue associated with the aging of the population and the declining percentage of households with children is the prospect of declining public incentives to invest in human capital. This is an issue that already confronts many rural communities having a disproportionately large retirement-age population. Those communities often find it difficult to pass local school levy increases and/or bond issues (Deller). In the national context, entitlements for the elderly have been more vigorously supported than investments in the quality of the future work force.

Conclusion

The nation's human capital problem cannot be laid at the doorstep of a public that undervalues the importance of education to individual and national well-being. Indeed, the public seems to have invested greater faith in the capacity of schooling alone to reduce poverty, solve social problems, produce local economic development, sustain national economic competitiveness and restore a civil and learning society than research and experience can justify. To the extent that those outcomes have been produced in the past, they cannot be credited to schooling alone—they were a consequence of benefits

produced by a "mix" of institutions, e.g., family, community, economy, religion, etc. But even in the past, history shows that schooling contributed little to elimination of poverty or to generating local economic development. Even if the schooling reforms and investments of the past ten years had been successful in raising average test scores and reducing dropout rates, it is doubtful if all the public's expectations for education would have been achieved.

The problem we have emphasized is that a broader range of policy measures must be considered as pertinent in order to improve student achievement and increase production of needed human capital. Research offers little encouragement that further movement with traditional education policy measures alone will have much effect on student achievement (Deller and Rudnicki). The key seems to lie in linking education policy initiatives with other human resource policy efforts. There are some schools that are better than others—that is clear. But all schools are encountering difficulty overcoming the social, nurturing and other deficits a growing number of children bring with them to school. Changes within the school, intended to improve student achievement can be, and are being, negated by changes outside the school that affect student learning and motivation to learn. Despite widespread criticism, schools actually work reasonably well when provided with a healthy and motivated student body. But improving learning alone, without consideration to what is learned and how that relates to human capital needs and prospects for better employment, is unlikely to improve returns to public and private human capital investments.

Schools are sandwiched in between a need for change among institutions that supply the most important input to effective education—the health and well-being of students arriving at school to be educated—and those institutions on the human capital consumption side that supply the incentives (or disincentives) for both public and private investments. An effective human capital investment strategy would integrate those investments.

The policy environment for education/human capital production creates an important opportunity for public policy education. First, relevant policy- and decision-makers are accessible to public policy educators more so than in, say, agriculture, health, etc. That is true because 15,000 local public school districts make and implement policies that affect how much of what students learn in public schools. And the thrust of current public school restructuring initiatives is at least partially directed toward local schools taking even greater responsibility for devising strategies to improve learning, attitudes and aspirations of students. Local school administrators, board members, parents and community leaders are prospective audiences for public policy education programs. Secondly, public policy education can make a contribution because, as this paper has attempted to show, beliefs about effective public education are widely at variance

with accumulated research and knowledge about what contributes to effective schooling. Current beliefs sustain current policy efforts and are at the foundation of the institutions that affect human capital production. If the institutions are to change, we side with North in emphasizing that beliefs that are inconsistent with current realities will have to change. Thus there is an opportunity to affect policy by the provision of objective information and analysis of policy alternatives at all levels. A part of the policy education process should also be to assist local policy decision makers to identify policy measures that are accessible and can be implemented at the local level. That includes encouraging a more integrated and holistic approach to education and local community and economic development efforts.

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IMPROVING THE SCHOOL-TO-WORK TRANSITION

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The Youth Apprenticeship Demonstration Project places young people, beginning in their junior year of high school, in work sites for ten to twenty hours per week in order to teach them both specific work skills and broad personal and social skills. Work experience is carefully planned and supervised and coordinated with school classes. its purpose is to help young people who do not expect to enroll in four-year colleges ("The Forgotten Half") identify career paths that will orient them toward academic achievement and socially responsible behavior. Now in its fourth year of operation, the project is directed by the Cornell Youth and Work Program with a base in Broome County Cooperative Extension.

Research indicates that young people who do not graduate from four-year colleges typically spend the first several years after high school floundering in low-wage, low-skill jobs with no direct connection to a future career (Osterman). The approach used in the Youth Apprenticeship Demonstration Project was inspired by European apprenticeship systems—especially Germany's which I studied for one year (Hamilton).

The four-year program takes the high school junior through high school and two years of community college. We began by choosing three occupational areas in which needs were projected for workers with more than high school education but less than four years of college: health care; administration and office technology; and manufacturing and engineering technology.

We are currently engaged in transferring responsibility from Cornell to a local organization, the School and Business Alliance (SABA). We began the project expecting that extension would not be appropriate as a permanent base because apprenticeship is too resource intensive. Taking it over permanently as a large-scale project would skew extension priorities. Instead, extension acted as an incubator, supporting research and development initiated at Cornell.

Project Lessons

Naturally, the project was designed to provide the best possible experience for participants, but it was also intended to generate new knowledge. Research has allowed us to monitor and improve the

project. Research also grounds our response to three key questions we set out to explore:

Do Young People Benefit?

The first and most important question is whether young people benefit from planned and supervised work-based learning related to their schooling. The record of school courses taken, grades received, and enrollment and success in post-secondary education is encouraging. Testimony from the apprentices themselves, their parents, teachers and workplace supervisors is overwhelmingly positive. Apprentices take their school work more seriously, plan more carefully for the future, and understand how education opens career paths.

Are Workplaces Feasible Learning Environments?

The second question is whether it is feasible to use workplaces as learning environments for youth. Here, too, the results are unequivocal. Although workplace supervisors and managers must be creative and dedicated to find the right balance between exploration and production, the learning opportunities are rich and rewarding. Furthermore, many adults are quite competent at coaching youth apprentices and greatly stimulated by the experience.

Is the Program Too Demanding for Employers?

A third question is whether providing learning opportunities for youth makes unrealistic demands on employers. This question is answered in part by the discovery that the program helps create more productive organizations in addition to preparing well-educated, highly-skilled workers—lifelong learners who possess enriched personal and social skills—precisely what employers need to prosper in the future. The question of how employers gain is critical because youth apprenticeship cannot move past the level of small-scale demonstrations unless many employers are willing to accommodate young people. And that will not happen unless they believe it is in their own self-interest to do so.

Cooperative Extension's Role

New legislation provides the opportunity to try this approach on a larger scale. It calls for the creation of school-to-work opportunity systems similar to the youth apprenticeship project, but broader and more comprehensive (Hamilton and Hamilton). The act provides federal support to partnerships involving educators, employers, employees and community organizations. Extension educators can become involved in this initiative in several ways. One is by helping form partnerships. Extension's reputation in most communities is as

an "honest broker" that can be counted on to put the community's interests above its own. Therefore, it is well placed to bring together the partners specified in the legislation, who typically have little experience working together and consequently do not fully trust each other. Another contribution is providing expertise in youth development, informal education (learning by doing), and staff development for coaches and teachers. Few other organizations can offer this combination.

The Cornell Youth Apprenticeship Demonstration Project exemplifies issues programming, which requires multi-disciplinary and multi-organizational collaboration. Whether in the education of youth or in the service of other community needs, this mode of operation is likely to gain prominence in the future.

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LIFELONG LEARNING—THE LINCHPIN OF HUMAN CAPITAL DEVELOPMENT

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A long-used axiom in the personnel or human resource business is that "no company can rise above the quality of its people." This is especially true in the long term and applies to any organization, including the United States of America. The debate, of course, will always center on: 1) what constitutes quality in the people, and 2) how do you train, educate or otherwise prepare the people for quality work, citizenship and lives?

The history of the "quality-of-preparation" debate about what our citizens receive in the public schools is as old as our system of schooling itself. But the modern era of this debate began in the 1950s with the widely- known "Sputnik" episode, and reemerged in 1983 following the release of the *A Nation at Risk* report. Since that time, presidents, governors, business leaders, educators and the citizenry at large have assailed our system of schooling for not meeting its challenge of preparing generations of workers, learners and societal members.

While the debate over quality preparation through schooling has ranged from increased math and science to open classrooms, teacher-proof curricula, back-to-basics, cooperative learning, and outcomes and inputs, it is only recently that a futures perspective and lifelong learning have earned their places in the discussion. Driven partly by the business community, and inspired and arguably embarrassed by the nano-speed of information technology growth, a new imperative has emerged in the public schooling debate—the concept of *lifelong learning*.

One only need look at the statistics offered by professional demographers to see what the key will be to future success and prosperity. Statistics such as:

1. The half-life of an engineer's knowledge today is only five years. In ten years, 90 percent of what engineers know will be accessible by computer.
2. Up to 4 percent of the labor force will be in job training programs at any moment in the 1990s.
3. Schools will need to be able to train both children and adults around the clock. The academic day will stretch to seven hours

for children, while adults will work a thirty-two-hour week, preparing for their next job in the remaining time.

The continuation of learning throughout life is not new. It is the very reason the word "commencement" was chosen to represent graduation from schools or programs—that persons would be moving forward, that this was merely the beginning. While many a commencement speaker has used that concept for her or his speech, it is an attitude that does not permeate the educational industry through action. There is seldom noted a lifelong aspect to any particular learning activity, module, class or course. And true communications along the continuum of formal education—from preschool, to mandatory schooling ages, to training or college institutions, and then into business and industry—has been virtually nonexistent.

What has begun to make a difference is the way in which business and industry, and in some cases even government, has reorganized itself for the times. Business is asking for a different kind of worker and for different kinds of professionals for 1990s kinds of companies. Business consultant and Fortune 500 lecturer Tom Peter's new book, sub-titled *Crazy Times Call for Crazy Organizations*, chronicles how the business community must organize itself for modern competitiveness. Much of Peter's message translates to people and how they must be willing to learn, work, live and be different than in our industrial and immediate post-industrial periods in America.

The implications for schooling are numerous and profound. They affect the curriculum, the structure of schooling itself, and even call for changes in the staffing and teachers of our schools. Yet many of the changes or reforms relating to the lifelong aspect are attitudinal. Students must see every day that what they are doing has some relevance. They must also see and learn every hour of every day that what they are doing is not something that is packaged in 180-day increments, but rather will be the fiber of their success in life. They must learn that one does not get "out of" the third grade or "out of" high school, but rather that the schooling has merely been the initial major player in their preparation for the future, and must be traded for another major player at "commencement." This new player may be a college, university or technical school. It may be a corporate or government internship or training program, but even it will not be a final shot. It, too, will be a "commencement," perhaps even into individualized learning and development for intrinsic reasons, but the formal cycle will continue, regardless of the job or profession held.

For any lifelong benefits to be gained, the curriculum of schooling must move forward with a futures perspective. The elementary curriculum must be foundationally advanced of the junior high curriculum, which is in turn foundationally advanced of the high school curriculum, because the high schoolers will be the first to graduate and their needs are more immediate to the current year. The elementary students' needs are relevant to the year of their graduation, and

must be "pro-rated" in advance to that time. For example, we cannot spend hours and years teaching cursive writing while every form says, "please print," and students check out laptop computers like band instruments by the time they reach high school in eight to ten years. It is curricular time lost, community money wasted, and irrelevance ingrained into the students.

Students must be taught the so-called basics, but must also learn the new basics for a modern era. New basics such as "technological literacy," are no longer options in American schools. Computers aside, one must be technologically literate to use modern pay telephones, banking ATM machines, voice mail and a myriad other tools of society. Learning to use these technologies as a new "literacy" from elementary school onward will instill the idea that they, as language, will always be changing, and that one does not really "learn" technologies at all but rather learns how to learn them.

Beyond the curriculum, the very structure of schooling must be modified to reflect a lifelong learning imperative and environment. The message of the importance of learning cannot be drilled into young people during an 8 a.m. to 3:30 p.m. school day and then be followed with a locked library and a ten-minute computer lab following the last class period. If a philosophy or attitude of lifelong learning is to be instilled into the schools, it must also be instilled into the community through the school's modeling. The school must work to become the academic and intellectual center of the community. It must take on a role of openness and, to a fault, be *invitational* to all learning-centered activities in the community. Partnerships and bridges must be sought out and established with other educational institutions, the business community, the civic and governmental community and all other publics. Educational plans that tout, allow, and cause lifelong learning opportunities must become the standard. In short, the school will become more of a concept and less of just a building where children meet nine months of the year.

In America's history one of the reasons for our success has been the quality of our people. In this century, we began with 85 percent of our workers in agriculture, and they were better than any nation's competitors. During our industrial period and up to the early 1950s, production accounted for 73 percent of our workers, and they were better than other nation's competitors. Today, less than 3 percent of our workers are in agriculture, only 15 percent are in production or manufacturing, and two- thirds are in the "services sector," with *knowledge* as our most important product. We are truly in an information age with constant knowledge explosions. And the information age rule fast being learned is that being uninformed or out-of-date is a luxury we cannot afford. As we approach the turn of the century, learning, and the speed by which one learns, will not be just the competitive edge, but will determine who gets to play and who stays home.

Our charge as educators is to provide the vision and the leadership to fashion our current systems of disconnected schooling organizations into systems of, and about, learning through the continuum of life. These systems must be mobile, spontaneous, responsive and connected and intertwined throughout entire communities. For if America is going to continue to prosper and be globally competitive, it will again be through the development of its human capital—its people. And the degree to which *lifelong learning* anchors this human capital development—serves as the "linchpin" of the educational system—will determine if America is prepared to play or will have to stay at home.

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Environmental Policies

ENVIRONMENTAL POLICY ISSUES: CHAOS AND CONFUSION

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This will not be a pleasant speech nor one I ever wanted to give. Most of my years of involvement with natural resource policy have been marked by a climate in which disagreeing parties would and could come together to work out disagreements and reach mutually acceptable goals. In the past decade, Idaho has had remarkable success with this approach to developing progressive and workable environmental policy and legislation.

Last June I gave a presentation at the Grizzly Bear Management School at the Yellowstone Institute, Yellowstone Park. Another participant, a bright, capable young U.S. National Forest Supervisor from a neighboring state, described the public sentiment in his regions as rage—militia literally forming, accumulating weapons and openly threatening to shoot federal officials.

While his experience may be on the extreme end of the scale in the West today, it is, nevertheless, instructive. Because the sad, unfortunate fact is that the normal mechanisms for constructing rational environmental policy and management have broken down. Confusion, frustration and chaos are the order of the day.

Those of you not from the West or the public land states, or not in the middle of the maelstrom may not fully comprehend what is occurring here today. I will try to describe it and give some sense of the frustrations, costs and pressures that are very real to those on the front lines of resource use, management and policymaking.

Most citizens do have a sense of the turmoil that grew out of the Environmental Species Act (ESA) listings for the spotted owl. That is a benchmark with which to begin. For the foreseeable future, the extremely varied interests of the Columbia River Basin—from the Pacific Ocean to the headwaters of the Salmon, Clearwater and Snake Rivers in central and eastern Idaho and on into Montana through other tributaries—are attempting to cope with the listing of three species of Idaho salmon. Water, drained at federal request from upper Snake storage reservoirs near the Wyoming border to try to meet the demands of the salmon, flows 150 miles downstream through the Hagerman Valley habitat of three listed snails and a limpet. National Marine Fisheries (NMF) calls the shots for salmon, U.S. Fish and Wildlife Service (FWS) for snails. Any actions of any

other federal agencies that may affect either salmon or snails in any way must consult with both, and NMF and FWS must consult with each other. And each of the three species of salmon have different demands for flows. There are many lawsuits in progress.

The Fish and Wildlife Service has declared that improved water quality is a key to protecting the snails. Federal solicitors have stated that both the Endangered Species Act (ESA) and the federal Clean Water Act (CWA) justify federal agencies to simply take private water rights, perhaps without compensation. Two Idaho environmental groups, under the leadership of the Sierra Club Legal Defense Fund, have successfully sued the Environmental Protection Agency (EPA) before the same judge who handled the spotted owl case, gaining an initial declaration that EPA must greatly expand the list of pollution-limited stream segments submitted to EPA by our state water quality agency. Compared with most other states, Idaho generally has very clean water. Our state Division of Environmental Quality listed less than one hundred segments as having serious problems. Today, it appears the list, with little or no factual basis, will be expanded to more than eight hundred, a high percentage of the stream mileage in the state. The plaintiffs have served notice they may ask the judge for injunctions against existing point and nonpoint source activities that may be contributing to these assumed pollution loads until adequate studies can be conducted to prove otherwise. At a minimum, they are demanding mandatory best management practices for all of agriculture which can be quickly and fully enforced.

In Oregon, as part of an obviously coordinated effort, another Sierra suit challenges Forest Service authority to issue grazing permits until the state water quality agency certifies that the grazing involved will meet state water quality standards. This summer, the U.S. Supreme Court declared that under the Clean Water Act, state water quality agencies have authority to require that any federally-permitted activity meets state quality standards. The court implied that there may be instances in which this authority is greater than a state's authority to issue water rights.

In yet another Oregon suit, plaintiffs obtained a 9th Circuity injunction to half ongoing grazing, logging and road building in any endangered salmon habitat until ESA Section 7 consultation takes place on the entire Forest Plan. Complex, lengthy, costly consultations have already occurred on all specific national forest activities that may affect salmon. In a related suit, Idaho environmentalists have asked for the same injunctions.

In the Yellowstone ecosystem, federal and state biologists responsible for grizzly bear recovery have perhaps the strongest documentation in the history of wildlife management that the bears are fully recovered. It is apparent, if you attended Grizzly Bear Management School, that the bears have recovered far beyond the expectations

or plans of federal managers. More than 60 percent of the bears are now outside the park. Burgeoning conflicts with humans and livestock have begun and are predicted to expand. In spite of the data, environmental groups have sued to block all efforts at delisting. At the last grizzly bear meeting I attended in August, the Bridger-Teton Forest Supervisor said he had to return home the next day to oversee copying of 42,000 pages of documents required for the discovery phase of the suits.

Well, what else is going on? In Idaho, the wild steelhead trout is proposed for listing. A petition was submitted last week to list the wolverine. Based upon a crash program to put in place an enormous set of management restrictions (developed behind closed doors with virtually no public input), the listing for the bull trout has, at least temporarily, been forestalled over most of northern and central Idaho. The Kootenai sturgeon was listed three weeks ago. In this state, thirty-six other mammals, insects, fish or mollusks and fifty-two plant species are in the listing pipeline as a result of the voluntary settlement of a suit by the Fund for Animals and other groups against the Fish and Wildlife Service a couple of years ago.

Idaho faces reintroduction of wolves in November (unless threatened lawsuits get in the way) and grizzly bears in the Selway-Bitterroots within another year. The Aquatic Species Recovery Plan for the Middle Snake River Ecosystem is on the desk of the Regional Fish and Wildlife Service in Portland. And the deadline for commenting on EPA's new Contaminated Sediment Management Strategy is October 31.

Yesterday I attended a meeting in Baker, Oregon, of appellants to a Washington, DC-directed decision to remove all domestic sheep grazing next month from the Hells Canyon National Recreation Area. The proposal is ostensibly intended to protect big horn sheep from pasteurella infections spread by domestic sheep. Yet, the Foundation for North American Wild Sheep; the Idaho Fish and Game and Agriculture departments; veterinarians representing both agencies; and the Idaho Woolgrowers all advised against the move.

Now, if that is not quite enough for the Potato State, last year a couple of leading Idaho environmentalists quietly participated in a major effort, started in Oregon and Washington, to destroy the entire potato industry from the farm clear through to McDonald's and the school lunch room.

This, of course, in addition to the Clinton administration proposals which, at least as initially outlined, would have virtually eliminated family-based livestock grazing from public lands. The Interior Department has filed legal claims in Idaho for reserved water rights that would take away most water rights issued to our citizens in the Snake River system since 1937. New U.S. Bureau of Reclamation leadership is actively pursuing, through a variety of initiatives, its

professed goal to reallocate Western water away from agriculture to the benefit of environmental interests.

While this is, unfortunately, not a complete list, the picture should now be forming. Everyone directly involved in resource management, public and private, is literally overwhelmed. On federal lands (60 percent of our state), resource management has ground to a halt, tied into a complete Gordian Knot of paper, studies, consultations, reports, meetings and legal briefs. Rational discussions seeking rational solutions to legitimate problems have broken down almost entirely. No one trusts anybody else any more.

How did we get into this state of affairs? Is this the proverbial American policy pendulum making its inevitable swing? My analysis goes back to the Carter presidency when environmental interests were allowed to take control of most hiring for the new administration. That was a mistake, for the Reagan administration soon wanted to get even and appointed Jim Watt secretary of the interior. George Bush moderated that somewhat, but environmentalists were still frustrated. Meanwhile, fewer and fewer people had actual or even academic experience with living things or living systems. People became tied to environmental policy by the organizations they joined. Their knowledge base came mostly from the organizations that got their dues. Simultaneously, environmental law flourished. The maximum authorities Congress might have buried within the ESA and the CWA were probed in detail. If state and federal political interests would not exploit those authorities to the fullest, perhaps the courts offered another route. From deep pockets such as those of Seattle's Bullit sisters, funds flowed freely. The financial playing field was more than leveled. With the election of President Clinton, and especially Vice President Gore, the lid was blown off of environmentalist expectations. Key members of the environmental movement were placed in key positions in the new administration. Strategies worked out well before the elections were soon moving down the track.

The political realities, of course, were quite different, as Democratic Western governors and congressmen soon pointed out. In December, 1993, national environmental leadership expected Congress, with full administrative support, to quickly reauthorize even stronger versions of the ESA and CWA. By June, 1994, both renewals were on hold and the sponsor of the proposed new CWA, a western senator, I am told on good source, had to take an armed guard when he toured his home district during a congressional recess. To the leadership of agriculture and the resource-based sectors in the West, as well as many politically astute citizens with a genuine interest in environmental protection, the unvarnished goals of the environmental leadership structure, heretofore apparently kept under wraps, but now suddenly revealed, were unbelievable and frightening. Federal resource managers, often with the finest aca-

demic and scientific training and experience the world had ever provided, bailed out en masse.

So, where do we go from here? Idaho and some other states are confronting unprecedented population and economic growth with all the related pressures on the environment and the quality of life. Progress is needed in the areas of water quality, grazing management, and protection of threatened species, but, most certainly, in planning and zoning and in managing enormous recreational pressures on some lakes, rivers and lands. Major economic, political and environmental issues have become international in scope. There is so much to be done. But it must be done in a way that works.

In my opinion, a necessary first step must come from Congress. The ESA and the CWA have come to bear separately and sometimes together through the courts in such an unworkable way that only Congress can untangle the hopeless snarl. The acts must be modified so that reasonable goals can be met without bringing resource management to a frustrating halt and the body politic to a complete revolt.

In Idaho, mistrust is now so great that new leadership may be needed for environmental organizations that, in earlier years, served the state effectively and well. A newly elected governor must exercise great skill to bring us back together. Avoiding the same backlash that occurred with the end of the Carter administration will not be easy. Yet, out of such circumstances often comes opportunity. Some on both sides of the fence now recognize events have gotten beyond control. The ante is high enough on both sides that smart gamblers should see the merit of compromise.

Here is where you come in. I believe the attributes that you bring to the table—professional training and a strong, objective scientific base combined with communications skills—will be in even greater demand in the months ahead. Quality information and analysis, packaged for modern mass communication to the body politic and to targeted segments of the population, is crucial to restoring workable environmental policy and management. You can play a key role in bringing us back together and moving us in the essential direction.

TRENDS IN ENVIRONMENTAL REGULATION OF AGRICULTURE

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My goal is to review major U.S. environmental trends as they relate to agriculture, particularly how these trends will shape laws and regulations applied to food production.

Increased Public Attention to Agriculture

One development apparent to all is the increased public attention being focused on agriculture and its impact on the environment. There are several explanations. First, much of the past twenty years of environmental protection has been focused on other economic activities such as industry. Much progress has been made in reducing pollution from such sources under the Clean Air Act and the Clean Water Act (CWA), but these acts left agriculture largely unaffected. Second, recent attention to environmental quality has led people to identify remaining causes of environmental degradation and many environmentalists have come to view modern agriculture as a serious threat. Excessive soil erosion; loss of prime farmland to urban uses; draining of wetlands; conversion of fragile lands to farmland; water pollution from pesticides, fertilizers, and animal waste; destruction of wildlife habitat; loss of endangered species and genetic diversity; channelization of natural streams; and even air pollution, are all sins that have been attributed to modern agriculture. As a result many in the environmental community have come to view agriculture as "unfinished business."

Arguably, no other economic activity in our society makes such an extensive use of vast quantities of natural resources. In America, farming and ranching take place on close to one billion acres of land. But the potential to cause environmental problems does not mean resource degradation actually occurs. That depends on the attitude of farmers and landowners toward the land and on the farming methods employed. Just as agriculture can harm the environment it can be a major force to protect and preserve natural resources. As owners of most of the private land in the United States, farmers play a significant role in protecting environments ranging from woodlands to wildlife habitat. The current debate focuses on the issue of how to balance agriculture's role in producing the food and fiber society demands with its function as a steward of much of our environment.

Farmers and their organizations claim no one has a more direct or greater concern for the health of the natural environment than farmers. It is farmers who drink the water in rural areas and who handle pesticides and experience any health risks, and it is farm families who bear the impact of soil erosion and land degradation through reduced yields, higher production costs, and decreased land values. The farm community takes offense at the portrayal of agriculture as an uncaring agent of environmental destruction requiring regulation.

On the other side of the debate, the environmental community points to continued soil erosion and water pollution from nonpoint sources associated with agriculture as indicators that agriculture does threaten the environment. Environmentalists theorize farmers view some off-site environmental damage as a legitimate cost of doing business and as society's trade-off for the production of the reasonably-priced supplies of food and fiber the nation demands. In contrast, environmentalists believe some productivity must be sacrificed to maintain environmental quality and that environmental protection, not production or income, should guide decisions. Environmentalists view agriculture as locked into an economic and technological system that encourages intensive practices and environmental harm. As Zinn and Blodgett have noted, the issue is one of contrasting perspectives. The different perspectives are reflected in the current policy debate on agriculture's impact on the environment. There are at least three central questions embodied in our national environmental laws that will be influenced by this debate. These include:

1. Who should be responsible for costs of environmental protection—farmers or the public?
2. Which corrective approaches should be pursued—voluntary programs of education and financial incentives or strict regulations and enforcement of environmental standards?
3. Who should be given responsibility for implementing and enforcing the laws—environmental agencies such as the Environmental Protection Agency (EPA) and state divisions of environmental quality (DEQ's) or the departments of agriculture?

How we answer each question will play an important role in determining the shape and effectiveness of environmental laws as well as the impact on farmers.

Can Industrialized Agriculture Protect the Environment?

A second major trend is inherent in agriculture's changing structure. Society is calling for greater environmental stewardship from agriculture. This is a call that may require not just a change in producers' attitudes, but also a commitment to stewardship most likely

to happen when producers have a connection to the land. But while farmers are interested in the future productivity of the land, they also operate in a world of short-term economic pressures and farm programs that emphasize maximizing present production, forces that can compromise the commitment to stewardship. The increasing separation of ownership of farmland from its operation, as reflected in the close to 50 percent of American farmland under tenancy, adds to the potential tension.

It is clear the public expects agriculture to perform many new tasks—as environmental stewards; producers of safe, abundant, inexpensive food; preservers of rural culture; and engines of rural economic growth. In many ways these are the challenges the family farm and American agriculture have tried to meet in the past. What is new is increased public involvement and specificity in determining what tasks will be given to agriculture.

But, at a time when it is clear we expect more of farmers, the structure of agriculture, and thus its ability to fulfill public expectations, is moving the other way. We have an agriculture system that in some ways is in the last stages of industrialization with ever-larger farms and now new forms of organization in the production of food. This is especially true in livestock production wherein the development of contract feeding and ultra-large-scale confinement facilities result in an industrialized structure quite different from the family-farm-size operations that may have been the model around which environmental laws and incentive programs were written. Food production has become increasingly specialized to the point that the traditional diversified family farmer with wide knowledge of different crops and farming systems has disappeared.

The question is, can the agriculture we are building yield the harvest we desire? This issue is clearly illustrated by the current changes in the concentration and location of livestock production.

Will Larger Facilities Lead to New, Stricter Rules?

The relationship between U.S. livestock production and the application of local land-use controls, environmental regulations, and nuisance laws has grown more tense in recent years. Several factors promise to make the issue even more significant in the near future. The changes underway in the structure of the livestock industry increase the potential for conflicts between agriculture and non-farmland uses. At the same time, increased public awareness and attention to environmental concerns will place demands on agriculture as local governments consider using land-use laws to control siting of large livestock facilities. The convergence of these forces raises real challenges to livestock producers.

Consider these factors affecting the relation between the livestock sector and others:

1. Concentration of animals into larger production units, particularly confinement operations, results in larger and more concentrated waste handling and disposal problems.

2. Under contract feeding, facilities involve both producer-owned livestock and animals owned by others which, to some people, changes the nature of the operation.

3. Courts have held that confinement slurry has a peculiar and especially pungent odor and is more offensive than good old manure.

4. Changes in the size and technology of livestock production facilities increase costs of and investments in such facilities, raising the financial risk of nuisance-based injunctions or local government decisions restricting expansion or operation.

5. Environmental concerns, especially over water quality, make complying with state livestock licensing requirements more costly. Successful applicants will want more certainty that subsequent nuisance suits will not override compliance with environmental laws.

6. Local concerns for environmental protection may lead to "not in my backyard" (NIMBY) challenges to new facilities, but it is important to recognize that environmental concerns, nuisance suits or land-use controls may serve as a pretext for other social fears that underpin local "opposition" to large-scale facilities.

Factors such as these have led many states to renew attention to state laws regulating intensive animal production. These may take the form of more stringent licensing and permit approval procedures, or new guidelines for the disposal of animal wastes, such as separation distance requirements or manure storage rules. How to address concentrated livestock production and the related question of the impact of smaller, unregulated open feedlots, will likely be addressed in connection with reauthorization of the CWA.

Increased Local Regulation of Livestock Production

The factors noted above are reflected in nuisance suits and local land-use disputes involving livestock production in states throughout the country. These developments help define the legal environment in which livestock production operates and will determine where it will grow. The most important issues in local control of livestock production include: nuisance complaints and right-to-farm laws, special protection districts such as agricultural areas, and local land-use controls such as county and municipal zoning. These are important to producers because at the local level, opposition and local innovations in regulation can have the most direct effect on plans to expand or construct a new facility. There have been numerous recent examples in Iowa involving nuisance suits against swine operations or

local governmental actions to regulate or control the location and operation of livestock facilities, and this in a state producing more than 25 percent of the nation's hogs.

In many cases, the reaction to such local efforts is, "Who can blame them?" Few of us would like to wake up to learn a 2,000-sow-operation is going in across the road from our house. But the practical legal effect is to create another layer of regulatory compliance for a producer to clear before expanding an operation. The challenge will be for livestock producers, state lawmakers and local officials to develop processes that accommodate both the legitimate concerns of neighbors and the needs of producers. Questions of odor control, the scale of operations, guidelines for waste handling, and restrictions on the location of facilities in relation to existing homes will be essential ingredients in this process.

One development is that an increasing number of states are amending right-to-farm laws to make nuisance protections conditioned on compliance with state environmental rules. This will make it even more important for producers to comply. But there is one irony. While most of the environmental rules relating to livestock production are designed to protect water quality, the majority of concerns by neighbors and local governments over new facilities relate to odors, implying the need for more time and effort spent addressing odor issues. That is why national livestock organizations such as the National Pork Producers Council have made odor control and reduction a key research priority.

Will Farmers Go to Jail for Polluting?

The EPA has established guidelines for licensing large animal feeding operations under the CWA. In addition, states may establish rules that further regulate livestock feeding, such as requiring licenses for smaller operations. In most states the departments of natural resources are responsible for regulating the operation of concentrated animal-feeding facilities. As a result, the legal environment for producers is determined by the attitude the agency has toward livestock production. In most agricultural states the attitude has been one of only minimal attention. In other words, most state environmental officials are fairly lenient with livestock producers. Most states use a complaint-only basis to regulate and investigate livestock operations, meaning the state does not regularly inspect operations to determine if they have necessary permits or are operating according to the rules. But, if they receive a complaint, the state must investigate and can take action if necessary, such as requiring installation of waste handling to protect the state's waters.

But a state's attitude toward livestock production can vary depending on who is in charge of environmental enforcement and public attitudes. Violation of environmental rules are most often treated

as a civil matter, subjecting producers to penalties, but they can also be treated as crimes. That is what happened in an Iowa case in which criminal charges were filed against a swine producer for polluting a river. In *State of Iowa v. Ted B. Diehls, d/b/a Marywood Farms, Inc.*, Criminal No. 13347, charges were filed September 11, 1992, by the Iowa Attorney General's Environmental Crimes Team against a Warren County producer who violated the state's water pollution laws when wastes from his operation entered the South River. The trial resulted in conviction on four counts of negligently polluting the river and assessment of a fine of more than $25,000. The point is, if environmental problems from agriculture are seen as causing serious problems, in many jurisdictions the authority exists to treat the matters as criminal violations.

Opportunities for Dramatic Changes in Agriculture's Responsibilities

The most important trend in environmental law may be one for which we as yet do not know the content. In the next year Congress will consider a range of laws that could greatly change both the duties and obligations placed on farmers and how the nation will address environmental issues in agriculture. Legislation to be considered includes:

- The CWA reauthorization, which will involve enactment of new mechanisms for dealing with nonpoint source pollution from agriculture. This could prove to be the most significant new legislation shaping farming practices since the 1985 farm bill conservation provisions. The bill being considered would use impaired watersheds as the basis for identifying which farmers will need to adopt new methods. The program would continue to be administered by the state with greatly increased federal funding for cost-sharing of practices. The act includes reliance on best management practices (BMP's) and may require site-specific plans for some farmers to protect water quality. The law being considered would require the states to develop regulations for controlling pollution from animal feeding operations which presently are not considered point sources. In other words, all livestock producers may, in the future, need to develop plans for such things as waste management. The issue of nutrient management plans is something a number of states are already requiring under the state laws and the Coastal Zone Management Act CZMA), Pennsylvania and Maryland being good examples. Consideration of the CWA will also provide an opportunity for examination of national wetlands policy. A large segment of the farm community remains very concerned about this issue and will seek reforms on such subjects as definitions and compensation for restrictions.

- The 1995 farm bill, will address the issues of implementing soil conservation provisions and what to do with lands currently under the

Conservation Reserve Program (CRP). The future of farm programs and whether they are turned into some form of green payment system or converted to an income assurance system will be a central issue in debate. Another major question will be the future of the 36 million acres of CRP lands. What form of program we can develop and afford will be one of Congress's greatest challenges. How the CRP lands are treated will also raise important issues in the livestock sector, such as if grazing is allowed under modified contracts, and will offer opportunities for linking efforts to prevent Non Point Source (NPS) with long-term land retirement.

In addition to these laws, the Endangered Species Act and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) are also up for reauthorization. This will provide groups opposed to the acts, including some from agriculture, the opportunity to argue for reforms especially those restricting land use.

Conservation Compliance: Path to Future or Agriculture's Failing?

It is likely the nonpoint source pollution provisions of the CWA will employ some form of site-specific planning process for farm operations located in watersheds impacted by agricultural pollution. The development of these plans, and the technical advice from the agencies assisting farmers, will no doubt bear a great similarity to the conservation planning requirements for producers who farm highly erodible land. Many feel farm level planning offers the most effective way to reduce environmental impacts while offering local control and farmer flexibility.

One possible development that could challenge this faith concerns how well the conservation compliance provisions currently in place are implemented. Some environmental and conservation groups are concerned about the willingness of the U.S. Department of Agriculture (USDA) to enforce conservation plans when 1995 arrives. Past spot checks have revealed leniency and wide variations in how conservation planning has been implemented. The challenge for the USDA is to enforce conservation plans as written while being sensitive to the financial and weather forces facing farmers. If conservation planning is seen as a failure, the environmental community will press for more aggressive use of mandates and demand that enforcement responsibility rest with the EPA and not the agricultural agencies.

Will Property Rights Movement Protect Farmers or Lead to Backlash?

One of society's most fundamental issues is the balance between private property and the power of the state to restrict the use of property to protect the public health and project societal values. The

issue has a political dimension as to the form of society we create and a constitutional dimension because of the Fifth Amendment prohibition against taking private property for public use without compensation. Use and enjoyment of private property are fundamental components of American life and a major factor in our economic freedom. But quality of life and economic success is greatly shaped by state actions—such as environmental protection, land use planning, and protecting public safety.

As society has developed, our understanding has evolved both as to what is recognized as private property and what activities are seen as potentially injurious to the public. Perhaps no better example is the dramatic shift in policies toward the use of wetlands. From the nation's earliest history wetlands were considered undeveloped swamps that should be drained for economic use, and drain them we did. But in the last twenty years the important values of wetlands, for flood protection, water purification, wildlife habitat, and aquifer recharge have been recognized. As a result, federal and state policies on draining wetlands have shifted dramatically, perhaps much faster than the public awareness of the value of wetlands. But regulations to protect remaining wetlands have unleashed a storm of controversy by owners claiming their private lands are being taken for public use and demanding compensation.

The agricultural community has a fundamental stake in this issue. First, a wide range of environmental issues involves public regulation of agricultural land. Whether it is wetland protection, disposal of animal wastes, controlling soil erosion, or preventing water pollution, important public goals cannot be achieved without affecting the actions of private landowners. Second, in recent years a growing and vocal "property rights" movement has emerged in the United States comprised primarily of politically conservative groups and individuals who argue for a strict interpretation of the taking clause. Laws such as the Endangered Species Act and wetland protection have been their prime targets. The goal of the movement is a realignment of American property law to place private desires to develop land paramount to public welfare concerns, and require compensation to landowners whenever a regulation reduces the value of the property. In recent years the movement has experienced some success in forwarding a more "conservative" view of government power relating to land issues. For example, the recent Supreme Court decision in Dolan will require local governments to make a more specific justification of the linkage between a land-use regulation and the property affected. At present, the bill to reorganize the USDA is held up in the House over a property-rights-related proposal concerning the need for USDA to provide an evaluation of the impact of proposed regulations on farmers and landowners.

Constitutional protections for private property are fundamentally important, but it appears there are risks if the farm community

stakes its response to public desires for environmental protection on a position that, in essence, is, "If the public wants me to protect the environment, pay me." One risk is that the position may be judicially incorrect and will be rejected by the courts. Many state court rulings, such as the Iowa Supreme Court's rejection of a taking claim in upholding the state soil conservation law, show considerable precedent exists, both in common law and in statutes, for regulating farming practices. Another risk is that in the clamor over "property rights" and "takings" we may fail to recognize the important public benefits agriculture receives, either in the form of public cost sharing of conservation and more direct subsidies found in farm programs or local property tax breaks such as homestead credits and special use valuations. By focusing on claims that the public cannot limit use of private property, farmers and landowners may risk a political and social backlash that could cause the public to re-examine support for agriculture.

A final risk is that by diverting the current policy debate on environmental protection to a referendum on "property rights," the agricultural community may miss important opportunities to help society develop creative alternatives that can accommodate both the public interest and landowners' desires.

Will Citizen Suits Increase the Role of Courts?

Another trend that could develop concerns the role of private litigation in establishing environmental rules for agriculture. In many ways, private nuisance suits are an example. In two Iowa cases, that state's Supreme Court has held producers must incorporate swine wastes the same day they were spread and not dispose of wastes within one-quarter mile of neighbors' homes. Iowa does not have environmental rules requiring either same day incorporation or distance separation, but the effect of the court's rulings is to establish this standard for future cases. This illustrates how private litigation to protect what people feel are their environmental rights can establish new duties for producers. One potential source for such suits is the "citizen suit" authority often found in environmental laws as the CWA. The provisions authorize private citizens to bring suit to enforce the laws if, after notice, the government does not. The citizens can recover damages and attorneys' fees. There have been few citizen suits involving agriculture but they are a potential tool.

In the one citizen suit involving a dairy and the CWA, *Concerned Residents v. Southview Farms*, a U.S. District Court Judge in New York recently overturned a jury verdict against an agricultural operation. A group of neighbors filed suit in January, 1991, complaining liquid manure had leaked from the dairy's lagoons and manure spread on local fields had polluted the ground water. The suit alleged violations of the CWA as well as negligence, trespass, nuisance and assault and battery. The suit asked for $3 million in actual dam-

ages, $1 million in punitive damages and a $150,000 civil penalty. In May, 1993, the jury found the dairy had committed five violations of the CWA but awarded a total of only $4,101 to the six families who sued. The finding left open potential penalties for the violation and the attorney fees by the plaintiffs. In October, 1993, the judge reversed the jury's finding and ruled the acts in question could not be violations of the CWA.

The opinion is important because it is one of the first to rule on how the CWA applies to waste running off farm fields. The court ruled that just because stormwater runoff from the fields contained animal wastes, it was not removed from an exception provided for agricultural runoff. The court noted, "Congress has been reluctant to attempt outright federal control of agricultural and other nonpoint source pollution, preferring instead to leave most of the responsibility in this area to the states, and to use incentives rather than compulsion."

Will Conservation Easements Be the Tool of the Future?

A final question to consider is how we can create opportunities to improve the performance of agriculture and protect the environment. In recent years the concept of sustainable agriculture has received increased attention. Sustainable agriculture is defined in various ways, but in its simplest form it means developing agricultural practices that protect the environment while preserving the profitability of farmers. By focusing on how decisions affect the "sustainability" of agriculture, decisions can be made that incorporate a concern for the environment. More importantly, by combining a concern for the environment with attention to the economics of farming, sustainable agriculture offers a way to harness the producer's natural concern for the economics of farming.

In Iowa, the results from sustainable agriculture research on how to reduce nitrogen fertilizer use rates are already being seen. Recent studies indicate the average rates of nitrogen fertilizer used per acre in Iowa have dropped from 145 pounds in 1985 to 118 pounds in 1993 without affecting yields, meaning Iowa farmers are saving millions of dollars a year in reduced fertilizer costs while reducing the potential for excess nitrates to enter water supplies. By merging economics and environmental stewardship, sustainable agriculture holds great potential for the United States. It may offer a way to reduce the tension between the environmental community and the farm sector and help preserve consumer confidence in the quality of our food. It may provide a basis for justifying continued public funding of agricultural programs. If farmers adopt new practices to protect the environment, the negative environmental effects creating public pressure to regulate agriculture should subside. If this happens, increased reliance on laws and legal institutions to limit the effects of modern farming will diminish.

Perhaps the best example of private-public compromise is the increased use of conservation easements. Conservation easements operate by having the public acquire a property right in exchange for the landowner agreeing to permanently protect the resource or environmental protection values set out in the easement. Purchasing a conservation easement on a voluntary basis is an effective compromise between regulatory approaches that force the landowner to do the same thing but without compensation, and public acquisition of the property. Using conservation easements leaves the property in private ownership and available for other compatible economic uses while placing responsibility for funding on the public which reaps most of the benefits. The potential to use conservation easements to promote environmental protection in agriculture is best illustrated by the new Wetlands Reserve Program (WRP). The level of farmer interest in the WRP has surprised many people and illustrates how such programs can be effective. Congress has provided additional funding for the WRP and an emergency WRP as part of the flood relief spending. The nation needs to continue searching for ways to accommodate economic activity on private land while protecting important resource values.

Conclusion

We have reviewed the major trends in environmental regulation and how they may affect agriculture. It is clear the future will be full of new programs and challenges unlike those we have faced. By recognizing the legitimate interest of the public in developing a sustainable agriculture system, farmers can not only use this public interest to justify substantial support for agriculture, but enable the nation to identify and address any real threats agriculture production may present. Only then will farmers and agriculture be able to claim the mantle of stewardship to which they aspire. In the process, environmental law will play an important role in allocating responsibilities and promoting the public interest.

ENVIRONMENTAL ISSUES FROM AN ECONOMIC PERSPECTIVE

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There are many dozens of different economic perspectives on environmental issues affecting and affected by agriculture. The particular slice of perspectives I will examine today concerns the effectiveness with which scarce public resources have been devoted to environmental protection associated with agriculture. I will then juxtapose the trend in agroenvironmental protection programs against trends in the structure of the farm sector to arrive at some logically deduced conclusions about future policy pathways.

I begin by reviewing the allocation of public resources to environmental protection associated with agriculture. The two major sources of agroenvironmental protection resources are the federal and state governments, and each of these has different implications for the contribution of private resources by agricultural producers.

Federal Programs

Federal soil and water protection efforts historically have focused on providing economic incentives and the educational and technical assistance backups for voluntary actions by producers to enhance resource and environmental quality. At present there are more than twenty separate U.S. Department of Agriculture (USDA) programs that provide technical assistance, cost-sharing payments, or rental or easement payments as friendly inducements for voluntary actions by producers. This is an expensive approach. Currently, annual federal expenditures are around $3.5 billion, with programmatically related state and local appropriations adding another $500 million to these programs' public cost (U.S. Department of Agriculture). Producers chip in their own resources to these efforts, either by contributing their share of the cost of subsidized conservation structures or practices, or by foregoing future opportunities for alternative uses of land placed in the Conservation Reserve Program (CRP), wetlands reserve, or easements. But, because the programs are voluntary, it is not unreasonable to assume that the producers' share of their costs is yielding some private return in the form of increased land values, decreased variable production costs, or reduced income risk. They thus take more the form of investments than imposed costs.

The many evaluations of this set of voluntary, educational, tech-

nical and financial assistance programs find that the programs are not cost effective. Furthermore, with a few exceptions, their absolute environmental effectiveness is inextricably linked with the necessity of continuous funding. In other words, their environmental benefits are temporary insofar as without continued rental payments or cost-sharing payments, practices will revert in large part to ones that do not address environmental protection goals as effectively, if at all.

This reliance on government subsidies has two substantial, long-term problems. One is that it makes agroenvironmental benefits exceptionally vulnerable to the budget pressures that plague all areas and levels of public programs. Second is that with voluntary programs providing incentives for adoption of existing technologies, andwith technological fixes being avoided by placing vulnerable lands in reserve, there is no inducement for the private development of innovative technology to provide long-term, sustainable agroenvironmental protection.

The exceptions to this impermanence of effect are noteworthy. One exception is the adoption of conservation tillage and the development of new technology to profitably implement conservation tillage. The success of this aspect of agroenvironmental protection, though, owes as much or more to the energy crisis and rising energy costs as to USDA programs. Certainly, the technical and financial assistance programs accelerated the adoption of conservation tillage, but economic pressures would have likely led to similar adoption trends over a more extended period. Conservation tillage is profitable. Its use and increased adoption will continue whether or not it is subsidized.

The other exceptions to impermanence relate to the few technical and financial assistance programs that help producers adopt practices that would, even in the absence of subsidies, be necessitated by environmental regulation. These include wetlands protection, integrated pest management on commodities for which pesticide regulations are restricting chemical control options, and water conservation in regulated watersheds.

There is not a long list of exceptions in this category because to date, and relative to other industries, agriculture has not come under a lot of pressure from environmental regulation. True, the private response to Federal pesticide regulation has put economic pressure on some producers. Wetlands protection and restoration requirements are a burden to agriculture in some regions. Section 402 of the Clean Water Act treats feedlots and large animal confinement operations in the same way as industrial point sources of pollution. The Endangered Species Act, the Central Valley Project Improvement Act, and other federal laws have imposed large costs on producers in localized areas. And, yes, conservation compliance, sodbuster and swampbuster have engendered costs to producers who

have exhibited a willingness to endure those costs in return for farm program benefits.

But, in general, and so far, USDA has pushed the voluntary assistance approach, the EPA has placed the majority of initial responsibility for control of nonpoint, agricultural source pollution on the states, and states have responded to highly varying degrees.

State-Level Environmental Protection Related to Agriculture

An ambitious survey of state programs by Ribaudo and Woo reveals that as of three years ago, slightly more than half of the states had environmental laws that do or could affect agricultural production costs. Their findings indicate that . . .

- Nine states restrict some uses of some pesticides that pose water quality threats.
- Six states impose pesticide and/or fertilizer taxes or registration fees as revenue raising strategies.
- Six states impose standards on the technology for chemical application through irrigation.
- Seventeen states require some sort of nutrient best management practices, though penalties for noncompliance range from mere nuisance to substantial fines, and cost-sharing and technical assistance is offered by most of these States to reduce the financial burden on farmers.
- Nineteen states require some degree of soil erosion control to address water quality issues, although in ten of these, practices are only required if complaints are filed by a citizen or government agency, most of the states cost-share the implementation of any practice that is required, and requirements are nullified in three states if cost-share assistance is not available.
- Cropping practices near vulnerable bodies of surface or coastal waters are restricted in Maryland and Pennsylvania.

While some individual producers are no doubt greatly affected financially by these state regulations, the regulations do not add up to any significant aggregate, national effect—at least not yet. But, there are several reasons to expect the pace and severity of state environmental regulations affecting agriculture to increase in coming years.

First is the requirement under the Federal Coastal Zone Management Act that states develop and implement measures to restore and protect coastal waters, in conformance with EPA guidelines, backed up by the threat of federal regulation should state plans fail to meet federal guidelines. This fairly new requirement is significant not only because it provides strong incentives for regulation of some agricultural activities in coastal states, but also because it represents a

favored model for more aggressive pursuit of non-point, agricultural source pollution under a reauthorized Clean Water Act. I think it is increasingly clear that federal environmental mandates will be pressuring states to take new actions on agricultural sources of ground water, surface water, coastal water, and wetlands protection.

While nothing requires that federally-induced state actions take the form of regulatory standards, fees, or taxes, a second factor—fiscal austerity—makes the regulatory approach more likely than in the past. Continuing, large government subsidies for the adaptation of agricultural producers to environmental protection needs are unlikely given federal and state budget problems. Thus, the impermanent environmental gains that have historically been purchased with government subsidies may be able to be retained only through regulatory action, and EPA appears to be providing incentives for that action to come from the states.

Experience with the Clean Air Act and federal legislation on hazardous wastes, which in earlier years prompted states to implement plans that meet national guidelines, suggest that the degree to which states respond to federal incentives can be expected to vary significantly across states.

Lester notes four basic factors that appear to explain the extent to which states pursue environmental protection policies and program implementation. The first of these is the severity of pollution problems, as measured not only by the incidence of problems, but also by how strongly they are disvalued by the population they affect. This population-weighted severity influences the degree of pressure brought upon states to develop and implement environmental protection policies. Heimlich has developed a composite Environmental Benefits Index which measures precisely this notion of the severity of environmental problems related to agriculture. His representation suggests that, on average, the population-weighted severity of agroenvironmental problems is greatest in Long Island; eastern New Jersey; the Chesapeake Bay Region; eastern North Carolina; Florida; Alabama; along the Chicago lake plain; in the Mississippi Delta region of Missouri, Tennessee, Arkansas, Louisiana, and Mississippi; in the corn belt; in Southern Texas and the Texas panhandle; and in the south part of California's Central Valley and south central Arizona (Heimlich). If problem severity were the only factor, the states affected here would be those most likely to enact environmental legislation affecting agriculture. But other factors appear to be equally important in predicting states' behavior in this regard.

Lester's second factor is wealth. Simply put, "States with greater fiscal resources are assumed to spend more on environmental protection than those with fewer fiscal resources" (Lester, p. 71). The third factor, organizational capacity, considers administrative and legislative structure of state governments as a predictor of environmental policy outputs. The fourth factor is partisanship, which

weakly links environmental protection with Democratic leadership and majorities.

Using these factors and past performance as predictors, Lester classifies the states according to their likelihood of developing environmental response to decentralized responsibility in the 1990s (Table 1). In this scheme, the environmentally progressive states are those judged to have both a high commitment to environmental protection and strong institutional capabilities to follow through on that

Table 1. Expected Nature of State Environmental Policy Development

Environmentally Progressive States		
California*	Florida*	Illinois*
Maryland*	Massachusetts*	Michigan*
New Jersey*	New York*	Ohio*
Oregon	Pennsylvania*	Washington
Wisconsin*	Virginia*	
"The Strugglers"		
Connecticut*	Delaware*	Hawaii
Indiana*	Iowa*	Kentucky*
Maine*	Minnesota*	Montana
South Dakota	Vermont	
Maintainers of Status Quo:		
Alabama*	Alaska	Arkansas*
Georgia*	Louisiana*	Missouri*
Oklahoma	South Carolina*	Tennessee*
Texas*	West Virginia	
Environmentally Regressive States		
Arizona*	Colorado	Idaho
Kansas	Mississippi*	Nebraska
Nevada	New Hampshire	New Mexico
North Carolina*	North Dakota	Rhode Island
Utah	Wyoming	

**Also have a large area of agroenvironmental problem severity as represented by Heimlich's index.*

Source: Categorization according to Lester, 1990

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commitment; the "strugglers" have strong commitment but limited resources and/or limited institutional capabilities; those States most likely to maintain the status quo have strong institutional capabilities but weak commitment to environmental protection; and the environmentally regressive States have both weak commitment and limited institutional capabilities (Lester).

The states along whose name an asterisk (*) appears in Table 1 are those that also have a large area of agroenvironmental problem severity as represented by Heimlich's index. One indication of this overlap of categories is that agricultural producers in California, Florida, Illinois, Maryland, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, Wisconsin, Virginia, Connecticut, Delaware, Indiana, Iowa, Kentucky, and Minnesota will be more likely than others to experience increased costs associated with State environmental protection programs affecting agriculture. Another implication is that severe environmental problems associated with agriculture are less likely to be addressed through state actions in: Alabama, Arkansas, Georgia, Louisiana, Missouri, South Carolina, Tennessee, Texas, Arizona, Mississippi, and North Carolina. Admittedly, these implications are very grossly cut, but they are surprisingly consistent with the past history of States' environmental regulation of agriculture.

Intergovernmental Relations: Implications for Resource Allocation

Given the joint expectations that public funds for voluntary, technical and financial assistance programs are going to decline, and that State environmental regulation will accelerate, but at different rates across States, what does this imply for the future allocation of ever-scarcer Federal conservation and environmental assistance funds?

If the primary goal of federal assistance programs is to provide adequate environmental protection associated with agricultural activities, then the federal-state intergovernmental relations reviewed here would suggest that federal funds should be directed to areas of severe agroenvironmental problems that are unlikely to be resolved through state action. On the other hand, if an important goal of the historically voluntary assistance programs of the federal government is to prevent farmers from experiencing economic hardship in the quest for environmental protection, then intergovernmental relations suggest that federal funds should be concentrated in those states where environmental regulation would otherwise cause the greatest economic burden for farmers, thus assisting farmers' adaptation to more environmentally progressive States' actions. The choice between these options is further complicated when one also considers concurrent trends in the structure of American agriculture.

Adding the Effects of Agricultural Industrialization

American agriculture is undergoing a rapid structural change which involves coordination and vertical integration of the stages of food and fiber production, processing and marketing (through contracting and corporate ownership) and the consolidation and often geographic concentration of, units of production. Industrialization is most common in the production of vegetables, some fruit and specialty crops and poultry. It is proceeding rapidly for hog and other livestock enterprises and is expected to affect the grain and feed sectors in the next decade (Council on Food, Agricultural and Resource Economics).

Several suspected relationships between agricultural industrialization and environmental protection add new dimensions to intergovernmental relations and their implications for future resource allocation. First, individual producers cannot simply pick up and move their operations in response to financial pressure related to environmental regulation. However, vertically integrated operations can choose to site themselves in more hospitable states, thus encouraging an expansion of agricultural production in their vicinity and placing producers in other regions at an even greater economic disadvantage than environmental regulation may impose. A current example of this situation is provided by the case of a large hog processing firm, Smithfield, Inc., that has announced its intent to relocate from Virginia to North Carolina, purportedly because of the cost that Virginia's environmental regulations impose on its operations. (Note that by way of either coincidence or explanation, Virginia is classified as "environmentally progressive" and North Carolina as "environmentally regressive" in Table 1). Many of the Virginia hog producers that formerly contracted with Smithfield will likely lose their business in the favor of North Carolina producers.

Given both the fact that industrialization is accelerating in American agriculture, and the possibility that state-level environmental regulation will play a role in the location of highly integrated agricultural industries, decisions about how to allocate scarce federal funds for conservation and environmental protection, and technical and financial assistance require a range of new considerations. A decision to concentrate federal assistance funds in the more environmentally progressive states to complement expected regulation can be seen either as a way to slow down the disappearance of independent family farms as industrialization proceeds and favors location in the less progressive states; or an ill-fated allocation of funds to support those farms least likely to survive in an industrialized agricultural sector.

A decision to allocate federal assistance resources to the less environmentally progressive states, to increase environmental protection in the relative absence of state action, may backfire if these states are also the locus of industrialized production activity and if pro-

ducers who are vertically linked to upstream or downstream industries are less receptive to technical and educational assistance. The latter possibility is borne out by anecdotal evidence that producers contracting with large firms receive from those firms a substitute for public extension education and, thus, are less interested in the assistance offered by agencies such as the Extension and Soil Conservation Services.

Conclusions

My intent here has been to lay out some of the anticipated complexities involved in future decisions about how and where to spend what are expected to be increasingly scarce federal funds for environmental protection related to agriculture. I will not attempt to answer the questions I have posed about the implications for that allocation problem of state-level environmental regulation, with or without the compounding factor of spreading agricultural industrialization. The implications of intergovernmental relations for agroenvironmental protection and the effects of agricultural industrialization on agroenvironmental problems and their resolution are both areas that deserve considerably more study before good answers can be found. Still, I hope the following closing thoughts will have some general merit in the context of public policy education on environmental issues affecting agriculture.

- Intergovernmental relations are going to be increasingly important in determining the economic impact of a rising rate of environmental regulation affecting agriculture.
- State and federal government roles in these relations, and their impacts, should not be considered in isolation from other major economic trends affecting the agriculture sector.

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ENVIRONMENTAL ISSUES FROM A COMMUNITY PERSPECTIVE

Richard Bass
Owyhee County

Owyhee County is a rural, agricultural county located in the southwestern corner of Idaho. Its 8,400 people are spread over 4.9 million acres. We are the second largest county in Idaho and have one of the lowest population densities in the state, and probably the nation, at one person every .9 square miles.

As is the case in much of the west, privately owned lands are a minor part of the total land acreage of the county, amounting to about 17 percent (850,000 acres) of the county's total land area. However, these private lands are the most productive and are extremely critical to the long-term sustainability of the county's economy and its custom and culture. Public lands managed by the Bureau of Land Management (BLM) account for more than 3.6 million acres (73.8 percent) of the county land area, while 330,000 acres of state-managed lands are within the county boundaries.

The people of Owyhee County have historically earned their livelihood from activities reliant upon natural resources. Livestock grazing, mining and providing services and supplies to these two important sectors form the bulk of our economy. In fact, nearly 62 percent of the employment in our county is either directly or indirectly related to ranching, farming or mining.

Owyhee County ranchers operate about 45,000 head of beef cows. Feedlots and dairies add another 65,000 head of cattle for a total cattle population of about 110,000 head, or thirteen head for every person in the county. Mining first brought settlers into this area of the Great Basin. Silver City was a large mining camp that supported nearly 10,000 people in the late 1800s. Silver and gold mining remain a significant economic sector and part of our county custom and culture.

The bulk (94 percent of the total acreage) of our county is arid rangeland dominated by sagebrush, junipers and native grasses. It is an area of outstanding scenic beauty, wide open space and historical and cultural values. This vast area of rangeland provides the basic resources used to produce cattle. As one might guess from the earlier figures on land ownership, we are highly dependent upon lands managed by the BLM (80 percent of all county rangeland) for rangeland forage for our livestock herds. These lands are primarily

grazed in the spring through fall, although there are some areas that support winter livestock grazing. The grazing of these BLM lands during the growing season provides a market outlet for hay, pasture and grain that supports our livestock during the winter and early spring months.

We are extremely concerned about the current direction of public policy that will determine future use of our county rangeland, including the impacts on our private land as well as state land and BLM-administered land. The use of BLM land will determine to a large extent continued use of our private lands and state land leases.

The intermingled nature of land ownership patterns of private land, state land and BLM-administered land makes coordination of public policy essential to our future. We are dealing with land use issues such as Rangeland Reform '94; endangered species; state sovereignty over water rights; right-of-way access over public lands; wild horse and burro management; water quality and riparian conditions; wildlife depredation; wilderness designations; wild and scenic rivers; national park proposals; increased recreational use by hikers, ORV's and others; an Air Force training range; urban sprawl; and waste disposal.

All of these issues are changing the way we are able to manage our private lands as well as state leased lands and, thus, our way of life. As a rancher in Owyhee County who is highly dependent on public land grazing, I am concerned about these issues and their impact on continued operation of our ranch. As a county commissioner representing District 1 of Owyhee County, I am concerned about the potential disruption of our way of life and the impacts on property values and tax revenues that support county services and provide school funding. My fellow commissioners and many of the citizens we represent share these same concerns.

Owyhee County has been involved in land use planning for nearly fifty years. In fact, the first organized planning commission in the state of Idaho was established in Owyhee County in 1945. This ongoing process has evolved through the years and through several generations of county plans. However, the basic premise of planning continues with us today—"to provide broad goals and guidelines by which property owners in the county can attain the highest and best use of their property and at the same time preserve and enhance the quality of the environment and pave the way for desirable economic and social development." In fact, our 1990 Owyhee County Comprehensive Plan states, "The overriding and predominant goal of Owyhee County throughout its history is desired continuation of the lifestyle in Owyhee County which assures quiet enjoyment of private property rights and assures the highest possible degree of protection of those rights."

To help us deal with these issues, Owyhee County began an effort

to develop a land use plan for federal and state lands in the county in 1992 by creating a thirty-two-member County Land Use Planning Committee. This committee, and the numerous subcommittees dealing with different issues facing users of federal and state lands within Owyhee County, have been working continuously since their inception. The commissioners adopted an Interim Comprehensive Land Use and Management Plan for the Federally- and State-Managed Lands in Owyhee County in July, 1993.

This effort has provided some coordination with federal agencies, but reluctance on their part has made the process slow to show success. We anticipate that this planning effort will be an ongoing process as new issues and concerns arise and reshape the planning process. The plan must adapt and evolve with these changing circumstances and will continue to improve coordination of management. We are concerned that the current direction of public policy changes could eliminate future success in this process.

Here are some examples:

- Rangeland Reform '94 will either price livestock off the range or regulate them off.
- Proposals to eliminate historic rights of way essential to good range management.
- A ten-year absence of invading juniper control.
- Wild horse management that results in excessive numbers that damage the resources and exclude legitimate permitted livestock use.
- Cookbook management of riparian areas through compliance standards instead of active progressive management.
- Efforts to develop allotment management plans have been replaced with policy that imposes annually changing terms and conditions.
- Legal challenges to public policy?

Let there be no misunderstanding. Owyhee County has no misconception about the intent of the so-called "Rangeland Reform '94." The intent is to bypass the constitutional authority of Congress in order to administratively and arbitrarily rewrite policy for use of BLM-managed lands. The secretary was appointed by the president to serve the political agenda of the vice-president and of the vastly wealthy activist organizations that oppose multiple use of the lands. Secretary Babbitt officially serves as a cabinet officer, but as to "Rangeland Reform '94," he serves only as a minion of political expediency in promoting the "nonuse" called for by organizations such as the Wilderness Society, the Sierra Club, the Nature Conservancy, the Audubon Society and others who self-style themselves as "envi-

ronmentalist" groups. They grossly misuse the term "environment," defined in Webster's College Dictionary as follows:

> 1. the aggregate of surrounding things, conditions, or influences; surroundings; milieu. 2. the air, water, minerals, organisms, and all other external factors surrounding and affecting a given organism at any time. 3. the social and cultural forces that shape the life of a person or a population (Random House).

This definition encompasses the full meaning of the term "environment" and shows clearly that in protecting the "environment" one must be concerned about those social and cultural forces that affect the people who live on the land. The organizations that stylishly call themselves "environmentalists" ignore such forces.

When the devastating fires of coastal California destroyed homes with dramatic and tragic impact on the social and cultural needs of the people and families who lived there, employees of the U.S. government caustically cast those concerns aside in a national television statement that people did not belong on the Pacific coastal cliffs. In the "politically correct" mind of the bureaucrat, the tragic loss of property and of the personal treasures that families collect as part of their lives together was well worth protection of the kangaroo rat. No member of Congress would make such a callous statement—or would long remain a member of Congress if he or she did. The reason? The people can vote a member of Congress from office if he or she takes such a ridiculous position. But the people cannot reach the arrogance of an appointed bureaucrat through the inexpensive method of simply visiting the polling booth and casting a ballot. Such arrogance can be reached only through the expense and personal turmoil of litigation.

The people of the Bruneau Valley of Owyhee County, Idaho, have learned that lesson the hard and expensive way in their fight against the bureaucratic attempts to stop multiple use of the lands by protecting a microscopic snail uniquely identified by its penis size. Thankfully, these folks did not lose their homes, their possessions, their family and personal memories through fire damage enhanced by efforts to protect a rat. But they faced loss of water, that commodity upon which all life is dependent in the arid west, and loss of their livelihood because of bureaucratic arrogance in attempting to list the Bruneau Hot Springs snail as an endangered species.

With regard to the Bruneau Hot Springs snail, we use the term "arrogance" because the U.S. Fish and Wildlife Service listed the snail even though the listing was not supported in the scientific studies it commissioned and paid for with tax dollars. In fact, the agency ignored the very studies it commissioned and arbitrarily listed the snail. At great expense, with legal fees in excess of $100,000, the people joined in the Bruneau Valley Coalition and litigated the issue. U.S. District Judge Harold Ryan ordered de-listing of the snail be-

cause of arbitrary governmental actions ignoring procedural due process of law. Why did the agency ignore its own studies? Very simply because the "non-use" activist organizations demanded action aimed at ending cattle grazing and supportive agricultural activities in the valley. Even though calling themselves "environmentalists," they attempted to force their personal agenda on the people of Owyhee County through federal bureaucrats paid with tax dollars taken from those same people of Owyhee County.

The bottom line shows that the people of this county paid for the actions of the U.S. Fish and Wildlife Service in commissioning the studies; paid for the studies which did not support a listing; paid for the action of the agency in listing the snail; paid for all support activities by agency personnel in the U.S. Fish and Wildlife Service and other federal agencies such as the BLM, which immediately jumped into action to limit grazing and other agricultural activities; paid for the government's attorney who supported the listing in court; paid for the judge and all court personnel involved in the lawsuit; and also paid for their own legal representatives.

The bureaucrats who operate the agencies of the U.S. government did not believe that the people of Owyhee County would sacrifice financially in the manner necessary to halt this exercise in governmental arrogance. The bureaucrats also know that there is a limit to the financial ability of the people to fight their own government while there is no limit to the government's financial ability to litigate because the government pays its way with the tax dollars pried from the people themselves.

In that same bureaucratic knowledge of financial limitations lies the rationale for Rangeland Reform '94. The secretary attempts to bypass the Congress which is sensitive to the social and cultural needs of the people, trusting that eventually the people will run dry financially and be unable to further resist administrative tyranny through litigation.

Local Impacts of Trade Policy

LOCAL IMPACTS OF INTERNATIONAL TRADE

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Colorado State University

Hal Harris
Clemson University

The global economy has been evolving at an increased pace over the past two decades. The institutional support sector is only beginning to understand and respond to the resulting changes. Community impacts, structural change and technological innovation are but a few of the factors under review. While some fifty companies do about 80 percent of U.S. export business, the amount of export activity undertaken by smaller businesses has grown rapidly in actual and proportional numbers. Opportunities for value-added exports are among the fastest growing in the market, and small business is particularly suited to that market.

Information such as the following is key to identifying and understanding local impacts of international trade:

- Current Situation (trade data; export-dependent states; export potential; import status).
- Community Needs/Implications (support/services; economic development; state support).
- Market Implications (global versus international opportunities for communities; trade-offs; etc.).
- Policy Implications (local, state, national, international; likely changes).

This paper will provide an overview and discussion of the above. Before discussing specific trade data it is useful to have a common community economic model to which to refer.

Community Model

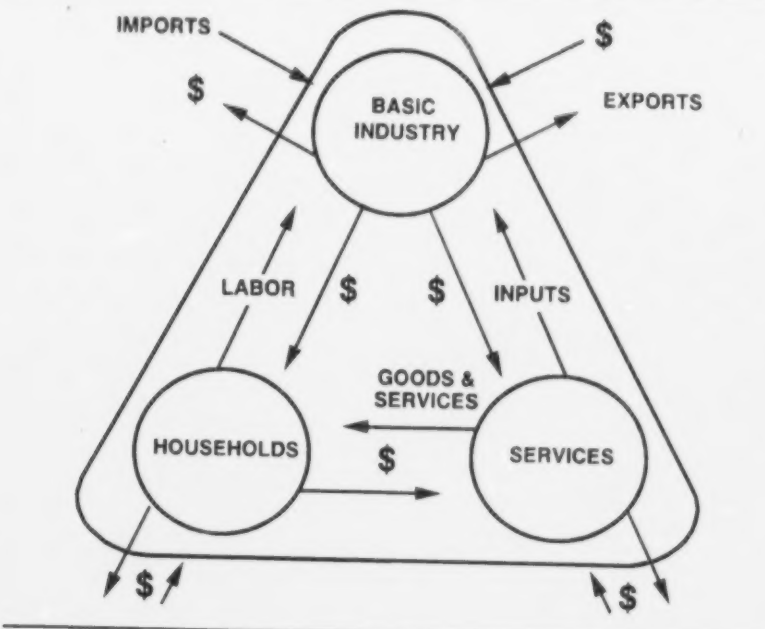
A distinction has surfaced between "global" and "international" relative to trade and social relations. International trade's definition is obvious—trade with other countries, whether overseas or along our borders. Global trade, on the other hand, has come to be used to

refer to a broader concept of trade—both regional (with other parts of the state or other states) *and* international trade. To some the distinction is artificial and trivial. To others it is fundamental and strategic—if private and public policies are to expand economic well-being through trade, they should, according to these proponents, be comprehensive in targeting regional markets as well as international markets.

In one sense, trade is trade. Local communities may not care whether their markets are local, regional (with other parts of the state or other states), or international. To a certain extent that is true. Few studies have attempted to isolate the net benefits of regional versus international trade.

Important components of all area economic systems are the industries that produce goods primarily for sale outside the economy. These basic industries are usually involved in agriculture, mining (including oil and natural gas production), or manufacturing and are called basic industries. Economic systems have two other major structural elements—service firms and households. The major flows of goods, services and dollars among these sectors of an economy are indicated in Figure 1.

Figure 1. Overview of Community Economic System



Basic industries purchase labor from households, reimbursing them with dollars. Many of the inputs used by basic industries are purchased from local service firms. Local service firms also provide goods and services to households (consumers). Of course, each of these three sectors of an economy purchases goods and services from outside the economy, but local transactions determine the relationships that exist among the various types of firms in an economy.

One of the principal characteristics of a local economy, whether it be a community or state, is the level of export activity. These exports bring dollars and income to the local economy and are multiplied through interaction with households and service firms. The level of export activity is one component of the impact international trade will have on local economies.

Current Situation

One indicator of state trade data is the level of exports by state. Figure 2a presents state exports for 1992 in millions of dollars. Figure 2b ranks these exports across the states. A distinct geographical pattern emerges with California and Texas receiving the highest ranking. Two western states (California and Washington) and three southern states (Texas, Louisiana and Florida) receive high ranking as well as several Great Lakes states. The bottom ten are dominated

Figure 2a. Exports—Millions of Dollars

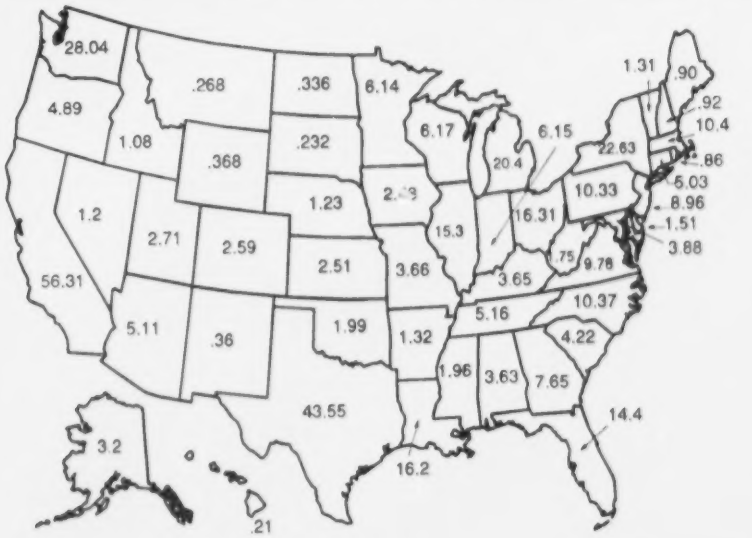


Figure 2b. Exports Ranked by Absolute Value

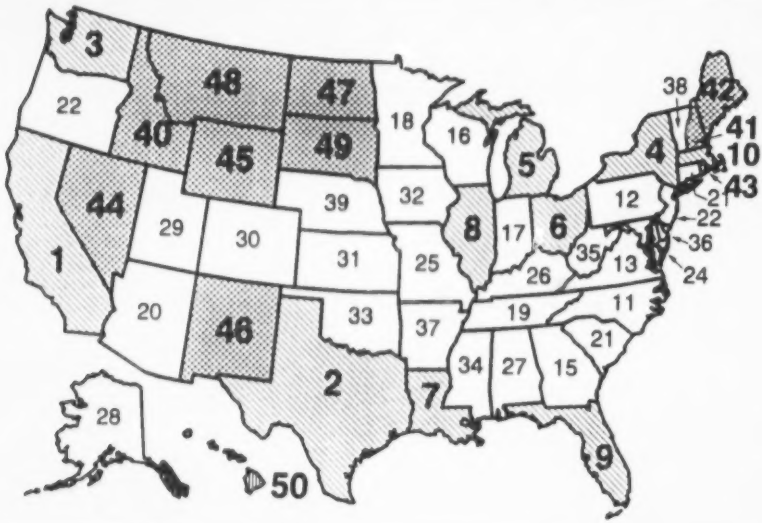
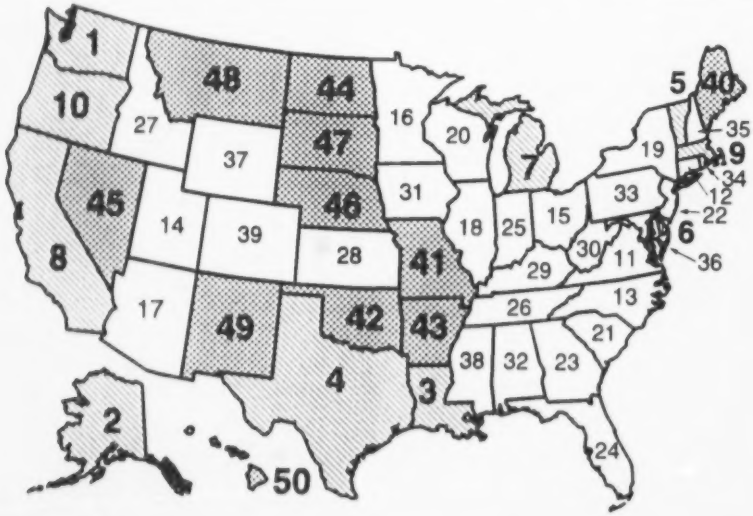


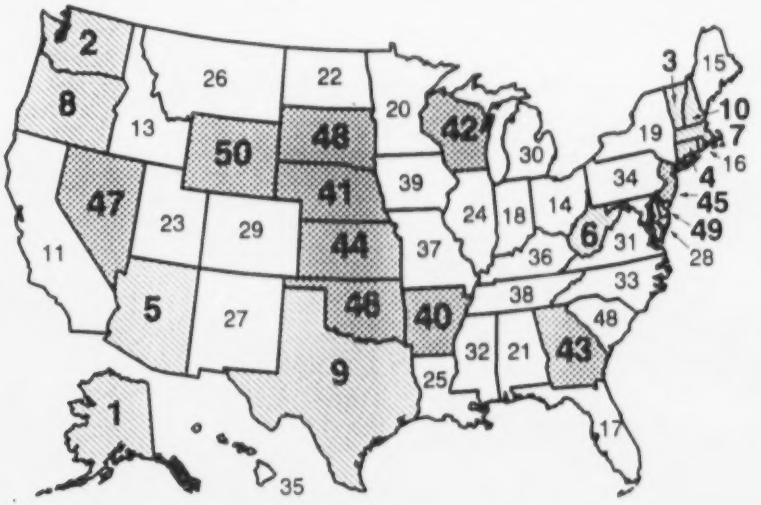
Figure 2c. Per Capita Experts—Ranking



by western states with the majority of the heartland falling in the middle. A slightly different picture emerges when the export values are presented in a per capita ranking (Figure 2c).

Exports can include many types of goods or products. Another indicator of local trade diversity is the level of manufacturing export activity by state. Manufacturing shipments can be either export related or domestic. Export- related shipments as a percent of total shipments are analyzed in Figure 3 and ranked across states. This figure should be viewed with some caution—the percent of shipments that are export related may be high while the total volume of shipments may be relatively low.

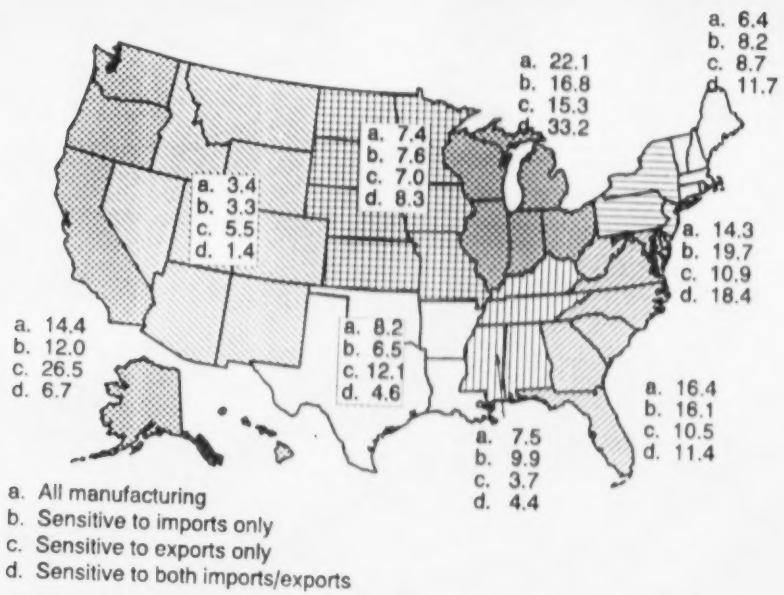
Figure 3. Percent of Manufacturing Shipments—Ranking



There are other studies in the literature that address the issue of geographic distribution of trade-sensitive industries. A study by Shelburne and Bednarzik analyzed both export-sensitive and import-sensitive manufacturing industries. Part of their findings are summarized in Figure 4. Employment in manufacturing sensitive to export activities is significant in the western region of the United States as well as the Great Lakes region and the Texas-Louisiana region. Again the upper Midwest and many western states display lower sensitivity to export activity (or import activity).

Agriculture is another key activity related to state end local export activity. A ranking of states by value of agricultural products sold is

Figure 4. Distribution of Employment in Trade-Sensitive Manufacturing Industries, by Region, 1990 (Percent)



Source: Shelburne and Bednarzik

presented in Figure 5. Texas, California, Florida and several upper Midwest states lead in the ranking.

These data are presented on a state level. Within each state there will be impacts that vary across regions, counties and communities. For example, in Oklahoma the state ranking of value of agriculture products sold is not in the top ten. However, several western counties have significant agricultural export production (primarily wheat). At the state level, local impacts of trade will vary depending on the level and type of activity in export-related industries. Of course, these regions that do export may have strong ties and economic relationships with other regions that do little exporting. Many communities have expressed strong interest in the potential for export activity since they see this as one opportunity to enhance the economic base.

Community Needs

The data reported in the previous section emphasize the importance of international trade to specific regions of the United States.

Figure 5. Ranking of States by Value of Agricultural Products Sold

Many community leaders have expressed interest in export opportunities but little is known about the level of expertise or types of assistance needed.

Because of an awareness of expanding export sales in Colorado and an appreciation of the impacts of trade on the state and local economies, a survey of Colorado community leaders was completed in 1992. The survey was part of a larger survey effort conducted in the states of Texas, Oklahoma and Colorado. Community leaders surveyed included city officials (mayors), county commissioners, economic development specialists, and participants in the Colorado Leadership Program. Individuals surveyed were asked how aware people in their communities were about agricultural trade, involvement of persons and firms in foreign sales, responsibilities of community leaders in provision of trade information and assistance, and informational needs with respect to purchases and sales of agricultural products from and to foreign countries.

When those surveyed were asked how aware people in their communities were about expanding trade in agricultural products, 60 percent of respondents reported some activity within the public sector of their cities and counties. Eighty percent of respondents reported activity within the private sector. Sixty-nine percent of respondents said that awareness of international trade had prompted requests for information about, and assistance with, foreign sales.

Respondents were asked to identify those services thought necessary to community members interested in trade. Assistance with business contacts headed the list of services, followed closely by educational programs (Table 1). Assistance with marketing, tours for foreign visitors, assistance with grants and loans, and feasibility studies ranked high in the list of services.

Corresponding to the list of needed services were suggestions of roles to be played by community leaders in trade-related activities. Included in the list were recommendations for language/cultural training, location of potential foreign markets, attraction of foreign businessmen to communities, and provision of incentives for trade development (Table 2).

To discern the more specific interests in, and possibilities for, trade, respondents were asked to identify the primary economic activities in their communities. Sixty-four percent of them identified agriculture as the principal activity (Table 3). Thirteen percent said manufacturing was most important in their communities; ten percent identified recreation and tourism as the most important activity.

It is thus evident that within the non-metro cities and counties there is an awareness among residents of international trade; there is interest in involvement in trade; and there is a felt need for educational and other assistance in understanding trade and involvement in trade—with particular reference to agricultural products.

Table 1. Services Useful in Support of Trade-Related Activities in Communities

Kinds of Service	Response of Leaders
	pct.
Educational programs	60
Language/cultural training	35
Tours for foreign visitors	51
Feasibility studies	40
Impact studies	31
Business contacts	66
Business management training	18
Promotion assistance	30
Trade show assistance	21
Marketing assistance	53
Licensing/packaging assistance	19
Grants/loans	42
Trade finance	21

Table 2. Roles and Services of Community Leaders in Trade-Related Activities

Roles/Services	Response of Leaders
	pct.
Sponsor educational activities	55
Sponsor language/cultural training	49
Employ trade consultants	13
Employ added staff for trade assistance	8
Provide incentives for trade development	26
Locate foreign markets	48
Attract foreign businessmen to community	49
Sponsor trade shows	19
Find and use interpreters	8
Initiate sister cities program	22
Sponsor exchange program	26
Organize speakers bureau	16
Other roles	12

Table 3. Primary Economic Activities in Communities

Economic Activity	Response of Leaders
	pct.
Agriculture	64
Mining	1
Manufacturing	13
Retirees services	3
Recreation/tourism	10
Government	1
Retail trade	4
Agribusiness	1
Other	3

Market Implications

Finding new markets for U.S. agriculture beyond the domestic arena can have direct benefits to farmers and others in the agricultural sector. Beyond that, however, it is a sensible policy to promote agricultural exports to fund U.S. growth and productivity in

general. Exports bring more money from outside to increase the flow of spending in the domestic economy. This increase in exports multiplies to pay for industrialization and technological improvements. Increased imports reduce consumer costs and expand variety and subsidize general economic growth. To the extent such benefits improve income, trade prospects with other nations are enhanced.

Most countries, including the United States, also intervene in the global market with domestic policy that may erect barriers to prevent import competition, subsidize domestic producers to make them more competitive in global markets, and develop foreign markets for their own industries. These are several implications regarding U.S. firms and expanded trade through new markets:

More Options and Power

When considering the trade options for a firm, there are some similarities to the national example. When a firm reaches the limits of its local or domestic market, foreign customers can support the business growth and bring in new revenue. Such revenue will multiply as it flows into the local and regional markets in which the firm interacts. The business expansion may give the firm market power or leverage to get better deals on selected inputs. Both regional and international trade can achieve this advantage.

Smoother Business Cyclical Downturns

There are other considerations as well. Many industries accept cycles that may or may not be unique to the industry, but nonetheless cause periodic shrinking of business activity. This can affect employment with layoffs and profits with sales declines, costly inventory swings and unreliable input flows. Just as business growth boosts the economy in the community in which a firm is located, so too will such cyclical downturns adversely affect the local economy. Both regional and international trade can achieve this advantage, although other countries may be less likely to be tied to the same temporal business cycles.

Smoother Seasonal Downturns

One reason some firms consider the international market is to counter seasonal cycles. Depending on the business, a seasonal cycle can be compensated for by finding a southern hemisphere country with a potential need for the firm's output. When the domestic market takes a seasonal downturn, the foreign market will hopefully be facing a seasonal upswing. Similarly, national economies typically cycle through ups and down, both minor and major. Finding foreign markets that do not follow the same pattern can provide a safety net for recessionary times. Thus, a carefully selected foreign

customer can help management stabilize the business. International trade is more likely to achieve this advantage, although some countries may be tied to the same seasonal cycles.

Prevent Downsizing with Maturity

Another situation faced by many mature firms is a declining domestic market. Tastes and preferences may change or other competitors may become more efficient. In the former case, there may be a foreign market in which demand for such output remains strong and/or potential demand could be developed. The mature U.S. firm has the product confidence and expertise on which to base such market development and thus maintain/expand sales. In the latter case, one reason for improved efficiency of competitors is often their larger size. While bigger is *not* always better, opportunities for growth, including global markets, need to be explored. International trade is more likely to achieve this advantage, although some countries may reflect the same level of mature market.

Alternatives for New Ideas

There is also the situation in which a business has the ability to add new product lines efficiently, but the domestic market does not exist for such goods. Explorations and development of market niches in other countries may greatly expand the opportunities available to such a firm. It may even be the case that the domestic problem is one of timing and a domestic demand may eventually surface. So much the better for the firm if it is already providing product, albeit to a foreign customer. International trade is more likely to achieve this advantage, although some countries may reflect the same barriers to new ideas.

Possible Government Support

Another category of possible opportunities comes somewhat artificially when governments, ours or others, intervene in markets to spur growth. Such activity provides international opportunities that might not normally be open to a domestic firm. Additionally, the government action may even subsidize the firm's venture to some extent. If the opportunity fits the firm and is carefully managed, it can provide a foundation for solid growth of both the firm and the importing country. However, exploitation of the firm or the country, or lack of long-term market strength and sound management principles could damage the survivability of the firm. International trade is more likely to achieve this advantage, although there may be some state programs that comparably support development of regional markets. Such cautions lead to the following discussion on policy implications.

Policy Implications

Global activities have made their impact in various ways in recent years. While the U.S. economy was far advanced over other nations' economies and world trade was a relatively small portion of the business activity for many sectors, state economies were generally stable and predictable. However, as other oil-rich countries began to flex their muscles and agricultural exports became proportionally more important to the United States, state and national economies that bought and sold in natural resource markets such as mining, oil and agriculture began to be whipsawed by forces seemingly beyond their control. That forced the United States to recognize the realities of global competition.

As sectors such as agriculture in an economy begin to reach limits in the domestic market, the next obvious choice is to accept the limit and stop growing or look outside for new customers. Export markets can provide a boost to the farm and agribusiness sector as well as expand the capital base for the nation as a whole. Farm exports were a small but important share of total receipts until the 1970s when the U.S. Department of Agriculture (USDA) began to actively promote "planting fence row to fence row . . . to feed the world." What was not anticipated was that many former customers of U.S. commodities decided to either become self-sufficient or expand production and get a piece of that global market we thought was ripe for the picking. Some countries did that by becoming more efficient, while others did it with government support.

But nothing is free. The price for participation in the global market includes becoming more competitive as well as accepting the variability in the market or paying more for protecting domestic industries. For some producers and agribusinesses that either could not become more efficient or bear more risk, the interaction with the global market meant one of three things:

1. Restrict business activity to the local market (and that may cost potential profits and economic development for the community).

2. Expect government assistance to keep the business viable (and that may cost taxpayers or consumers and still be of no benefit to the community).

3. Go out of business (which will be an economic loss to the community).

In the intermediate to long term, trade based on comparative advantage provides net gains to society. In the short run, however, there is often much economic malaise and human agony as a result. Witness past stories of farm auctions and farm family tragedy, of mining communities becoming ghost towns, of manufacturing towns turning to rust. While no excuses can gloss over such conditions, so-

ciety can improve its responsiveness to the adjustment process. For example, surveys of farm families who have survived the transition suggest their quality of life actually improves afterward, although they felt abandoned during the crisis.

While the United States continues to import more goods than it exports in general, the reverse is true for farm exports. In fact, agricultural markets are recovering and the United States is regaining its market share that was lost in the early 1980s. Recent policy efforts that are significant actions are the General Agreement on Tariffs and Trade (GATT) and the North American Free Trade Agreement (NAFTA).

General Agreement on Tariffs and Trade

GATT, signed by more than one hundred nations, serves as a legal institution and a forum for legal confrontation among member nations to hopefully resolve trade conflicts. The most recent Uruguay Round concluded with a signed agreement in late 1993. Each country's legislative body must vote approval of the agreement by the summer of 1995.

The agreement improves *import access* among member countries. There can be no new tariff increases, members must convert nontariff barriers to tariffs, and tariffs must be reduced. Global trade will increase and the market will increasingly determine trade flows, government policy less so. *Export subsidies* and differential export taxes must be phased out in five years. Little change is expected in relative United States-European Community (EC) positions in world markets. Little change is expected in *internal supports*, although change appears in the agreement. While members must phase out trade-distorting policies over ten years, recent changes in U.S. and EC domestic policy already satisfy minimum requirements. Members may continue farm income support and other payments not linked to production or marketing. There must be reductions in artificial barriers. These changes will make the United States somewhat more competitive; the EC and Japan will be generally less so. Members must harmonize *health and sanitary measures*. Sound scientific standards, not arbitrary decisions, will be used to settle disputes.

Tariffs and *export subsidies* will be cut and, where appropriate, quotas increased and import licenses eliminated on wheat, feed grains, cotton, peanuts, livestock, dairy and agricultural products. There likely will be increases in U.S. exports of wheat and flour, feed grains and products, beef and processed meat, pork, soybeans and products, other minor oilseeds, and poultry. There likely will be increases in U.S. imports of cotton, textiles and apparel, along with a decrease in U.S. exports of such. There also likely will be increases in U.S. imports of peanuts and dairy products.

Tariffs will be cut by the year 2000 for medical equipment, scientific instruments, pharmaceuticals, wood, paper, aluminum, chemicals and construction equipment. Harmonization of rules of origin will be completed by 1998. An anti-dumping code is planned by 1995. Financial services were incorporated in GATT, but more talks are necessary to gain safeguards for U.S. firms overseas.

North American Free Trade Agreement

Canada, Mexico and the United States completed negotiation of NAFTA in 1992 and Congress subsequently approved it in 1993. The agreement is technically three agreements between: United States and Canada, United States and Mexico, and Mexico and Canada. The United States and Canada are already each other's top trading partners (1992: $183 billion in trade). The Canadian-United States Free Trade Agreement has been in effect since 1989. Canada exports to the United States autos/parts, paper and crude oil. The United States exports to Canada vehicles/parts, engines, cathodes and valves. Mexico is the third leading trading partner of the United States (1992: $75 billion), with a $5 billion surplus of U.S. exports in 1992. The United States is Mexico's top trading partner. Three-fourths of United States-Mexico trade is manufactured products (one half machinery and auto parts). Much of the trade is tied to Maquiladora industries. Mexico has liberalized trade rules and foreign investment law since 1986. Mexico exports to the United States crude oil, vehicles/parts, electricity equipment and piston engines. The United States exports to Mexico auto parts, electrical equipment, cathodes, valves, telecommunications, office machinery and computers.

All nontariff barriers have been converted immediately to tariff-rate quotas (TRQs) or tariffs. For TRQs there are no tariffs within the quota amount; over- quota tariffs are set at equivalent current value and will decline to zero over ten to fifteen years. The United States and Mexico will eliminate tariffs on a broad range of agricultural products covering half of bilateral trade. Mexico will replace import licenses with tariffs or TRQs phased out over ten years. During the first ten years, a NAFTA country may invoke a mechanism limiting imports set by "trigger" levels in the agreement. The tariff is then imposed for that year. There is encouragement to move to domestic support policies that are not trade distorting. It allows support changes in compliance with GATT. The agreement prohibits the use of sanitary/phytosanitary measures designed to be disguised trade restrictions. Each country has sovereign rights for measures that are based on scientific principles or risk assessment to meet the country's chosen level of protection, provided they do not result in unfair discrimination/disguised trade restrictions. Harmonization and equivalence are the goals.

Early analysis by USDA and the U.S. International Trade Commission suggest net benefits for the three countries. Specifically,

studies show U.S. gains in wheat and feed grains, oilseeds, wood products, raw cotton and textiles, peanuts, beef and processed meat, pork, poultry and dairy products. There likely will be Mexican gains in fruits and vegetables and apparel, while benefits to the Mexico and the United States are mixed for livestock and products. Mexico, currently the major market for U.S. cottonseed, will increase imports. There likely will be an increase in Mexican cattle feeding in the United States as well as exports of slaughter cattle to Mexico and processed beef. Increasing Mexican consumption of horticultural products will limit export supplies for U.S. markets. There likely will be increases in U.S. exports of fresh apples, pears, peaches, nuts and seasonal fresh vegetables.

About two-thirds of U.S. industrial and agricultural exports to Mexico are eligible for duty-free treatment in zero to five years. Mexican export-performance requirements, which require U.S. companies to export as a condition of being allowed to invest in Mexico, are eliminated. Mexican "local content" regulations are eliminated. Tariffs and other barriers will be significantly reduced for automobiles, textiles and apparel, land transportation, telecommunications, financial services, and advertising. Intellectual property rights will be honored. Increases in U.S. auto exports, telecommunications, financial services, investment in Mexico, technology, advertising company operations are likely. A decrease in U.S. auto imports from Mexico is possible. An increase in textile and apparel imports from Mexico is likely, but will largely offset imports from other countries, especially the Pacific Rim. Increased U.S. transportation into Mexico is probable.

Summary

Using state and regional data as a starting point, this paper has discussed the impacts trade has on local economies. Trade data were reviewed to demonstrate the geographic differences that exist. Different regions of the country and thus different communities have varying levels of trade activity. Manufacturing and agricultural production are two key industries that provide examples.

Community needs were discussed indicating an interest and awareness in international trade as well as a need for further educational and technical assistance. There are several market implications that can lead to more diversification for local economies. International trade offers a very important option for businesses and communities searching for economic solutions.

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Financing K-12 Education

THE REAL PROPERTY TAX AND K-12 EDUCATION

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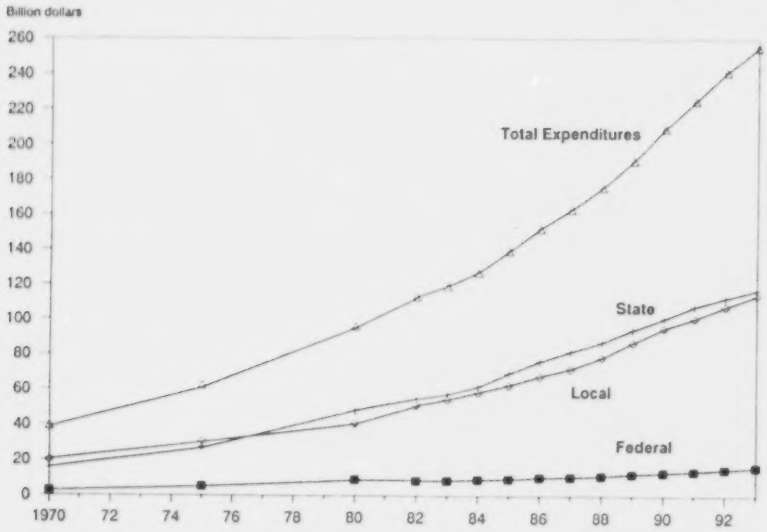
Property taxes provide 48 percent of local governmental revenues (taxes plus state and federal aid) nation wide. They are local government's primary source of revenue. The real property tax has been and continues to be the basic source of local revenue. Furthermore, of all local government expenditures, 37 percent go to elementary and secondary schools (U.S. Department of Commerce, 1993, p. 45). The cost of educating our nation's youth has increased significantly and rapidly in the past 10 years (Figure 1). The responsibility for paying for these increased costs often falls to local governments and citizens. Problems with property tax, therefore, become problems of school finance. These issues trouble a number of researchers, policy makers and extension educators. Our efforts in this session are to touch some of the concerns. While it is not possible to address all aspects of school and local government finance, perhaps a few of the

Figure 1. Expenditures for Public Elementary and Secondary Schools and Finance Sources, 1970-93



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basic facts and problems of the real property tax can be discussed. Then we can examine some possible areas for change in finance mechanisms. While we cannot examine all issues, we focus on two questions: school finance and property tax administration. Let's see what some of our colleagues are saying and considering.

Nationally, the real property tax constitutes three-fourths of the tax revenue raised by local governments. According to the U.S. Department of Commerce, in 1991, local governments got $161.8 billion of their $339.9 billion of general revenue from own sources (1993, p. 2). Of that general revenue from own sources, 63 percent is taxes and the remainder fees and charges. Of these local government taxes, 75 percent are property taxes (Table 1). And of the property tax revenue, about 90 percent is from real property (Table 1) (U.S. Department of Commerce, 1989, p. 7).

The real property tax is based on the real estate's long-run value and may be high or low in relation to any particular year's earnings. The market value of real estate is net earnings capitalized at some appropriate rate of interest. Since net earnings are earnings after taxes, the value of the capitalized tax represents a public value over and above market value. For example, a value of $2 trillion from capitalizing the 1987 real property tax of $105 billion at 5 percent might be added to the $12 trillion of U.S. land and structures estimated for 1987 by the National Realty Committee. The combined $14 trillion value might be termed the national asset value of real estate (National Realty Committee, pp. 2, 96).

Farmland values, too, have a private and a public dimension. In 1993, the market value of farm real estate was $685 billion (U.S. Department of Agriculture; Shoemaker). If the comparable year's tax of $4.9 billion were capitalized at 5 percent, for example, the public interest via the real property tax would be $98 billion (Gertel). The national asset value of farm real estate of $783 billion represents the true productive value of the land and the $685 billion is the private or market share of the real estate. If the tax were raised to $6 billion, the market value of the real estate would drop to $663 billion. The value of the land would not change, but the lower market price would reflect the higher tax.

Similarly, if the real property tax is reduced by exempting part or all of the value from taxation, for example, the market price of the exempted property will increase. Decreases or increases in the taxes on land can create windfalls or wipeouts for the property owners, but they do not change the underlying value of the land. Changes in the tax only change the distribution of value between the public and the private landowners. All the redistributive advantage of preferential assessment of farmland went to the owners of the farmland at the time the various laws of the 1970s were implemented. All subsequent purchasers simply paid a higher market price for their farmland in exchange for lower taxes.

Table 1. Revenue from Property Taxes, 1956-57 to 1990-91 (dollar amounts in millions)

Fiscal Year	State Governments			Local Governments		
		Percentage of			Percentage of	
	Property Tax Revenue	Revenue From All Sources	Total Tax Revenue	Property Tax Revenue	Revenue From All Sources	Total Tax Revenue
1990-91	6,288	1.0	2.0	161,772	26.4	75.3
1989-90	5,848	0.9	1.9	149,825	25.5	74.5
1985-86	4,355	0.9	1.9	107,356	24.7	74.0
1981-82	3,113	1.0	1.9	78,805	25.2	76.0
1976-77	2,260	1.1	2.2	60,267	30.7	80.5
1971-72	1,257	1.1	2.1	40,876	36.1	83.5
1966-67	862	1.4	2.7	25,186	39.0	86.6
1961-62	640	1.7	3.1	18,416	42.6	87.9
1956-57	479	1.9	3.3	12,618	43.4	87.0

Source: Bureau of the Census, Census of Governments, Government Finances.

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Other distributions between the public and private interests in land include regulations that limit land use options. The regulations could take the form of a tax or, by enhancing the attractiveness of a neighborhood, a subsidy. Government may rent land for desired purposes, as in the Conservation Reserve Program (CRP), or it may buy land for roads or utilities, or purchase easements for particular purposes. Except as government intervenes to change basic supply or demand features of land, taxes and subsidies do not change the underlying value of land, only the distribution of interests between the public and private landowners. The preferential assessment of farm, open space, and forest lands represents a nearly universal program subsidy by local government to landowners.

Preferential Assessment Favors Farmland

Since the early seventies, fifty states have modified their real property tax laws to encourage using land for agriculture, open space and forestry. Provisions of state tax laws vary widely, but they commonly appraise and assess in terms of current use rather than a market value that takes into account projected future uses. Farmland is valued as farmland rather than future residential homesites. Land use assessment is intended to align the annual tax payment with the current annual earning capacity of the land, rather than the value of land as an asset (Aiken; Malme).

Rationales for subsidizing agriculture, open space and forestry through preferential tax assessment vary widely. One argument cites lower levels of public services associated with low-density settlement. Low-density agriculture and forestry mean fewer school children. Even at higher per capita costs, the total costs for education may be lower in communities with low-density residential development. Through the eyes of the public fisc, agriculture, industry and commerce earn, but babies and school children cost.

A precise estimate of how much subsidy owner/taxpayers receive through preferential assessment of their farmland may be incalculable, given the detailed laws of fifty states. Minnesota requires that the taxpayer receive one-third of his/her family income from the land to receive the preferential assessment. Wisconsin allows qualifiers to deduct their property tax from the state income tax to such an extent taxpayers may get a refund. In those states that have used the real property tax for social engineering, the calculation of the subsidy equivalent of preferential assessment is difficult (Anderson; Michos).

A partial estimate of the subsidy equivalent of the preferential assessment of the real property tax may be derived from data acquired by the U.S. Department of Agriculture (USDA) in its annual survey of local tax officials. For example, the difference in per-acre tax rates for farmland with and without a preferential assessment

was 5 percent and 6 percent, respectively, in 1991 and 1992, the latest years for which data were collected. Those percentages translate into subsidy equivalents of $237.2 million and $292.1 million for the two years.

By reading, in that same USDA survey, changes in tax levies for parcels going on or off of preferential assessment, one gets another perspective. Levies on farmland parcels with preferential assessment in 1991 and without in 1992 increased 17 percent over 1991. However, levies on farmland parcels without preference in 1991 and with preference in 1992 dropped 33 percent. These findings suggest that the revenue losses by new entries in preferential assessment are greater than the revenue gained by lands leaving the preferential assessment.

Does preferential assessment preserve agricultural, open space or forest land use? According to Malme, "There is general consensus from extensive research over a twenty-year period that the economic incentive offered by lower property taxes has had minimal effect in preventing conversion of farmland to more intensive uses" (Malme, p. 22). In nineteen states there is no rollback feature to "penalize" the conversion of land. In other states the rollback feature is nominal, forming little disincentive to convert to other uses when it is otherwise profitable. Wunderlich estimated that eliminating the economic competition from nonagricultural forces on the value of agricultural land would require a subsidy of more than twice the entire real property tax paid on agricultural land. Real property taxes, to be an effective land-use policy instrument, should approximate the incremental value of a land-use conversion.

A Fair Tax When Administered Evenly

Policymakers may view taxes as sources of revenue, incentives for resource use and mechanisms for welfare. Taxpayers, for any particular tax, however, are interested primarily in equitable treatment. An equitable real property tax assesses the same rates on equivalent properties, but the effective distribution of the real property tax is uneven. Taxes per acre vary widely among states (Figures 2 & 3). Such variations are the result of differing levels of services demanded by citizens in different regions of the country, differences in efficiency of governments in providing the services, and differences in the bases of taxes and other fees, charges and revenues. Within the states, taxes on individual parcels will vary with the various parcels' quality and use value. Such differences, however, do not generally relate to the fairness or equitability of the tax.

The unevenness that bears on fairness relates to equality of burden of taxes. In an *ad valorem* real property tax, equality of burden means that government takes the same share of value from all properties. If the government takes a larger share of value from large-

Figure 2. Agricultural Real Estate Taxes, Average Per Acre, 1992

Source: Economic Research Service.

Figure 3. Agricultural Real Estate Taxes per $100 of Full Market Value, 1992

Source: Economic Research Service.

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valued properties, the tax is progressive. If the government takes a smaller share of large-valued properties, the tax is regressive. The bar chart based on data from a landownership follow-on of the Census of Agriculture (U.S. Department of Commerce, 1988) suggests an overall regressivity in effective real property tax rates in the United States (Figure 4). Similar regressivity was found in an overwhelming majority of state farmland tax rates (Figure 3).

Conceptually, the *ad valorem* real property tax is neither progressive nor regessive, but neutral. However, as Figures 4 & 5 show, the rate of real property tax in dollars per $100 of value for the largest landholdings is about one- third that of the smallest landholdings. Analysis reveals that very little of the apparent regressiveness is due to a "state effect." Furthermore, Wunderlich and Blackledge found steep regressiveness in all but four slightly progressive states and five neutral or slightly regressive states. Explanations based on owner characteristics such as age, race, residence and occupation are both intuitively and statistically inadequate.

By elimination, Wunderlich and Blackledge tentatively concluded that regressiveness is due primarily to the administration of the tax, perhaps the assessment process. The findings mean that large-valued properties are systematically under-valued relative to small-

Figure 4. Real Property Taxes Per $100 of Value, 1988

Owners in the top class of landholdings ($5 million or more) pay tax rates about one-third of rates on owners in the bottom class.

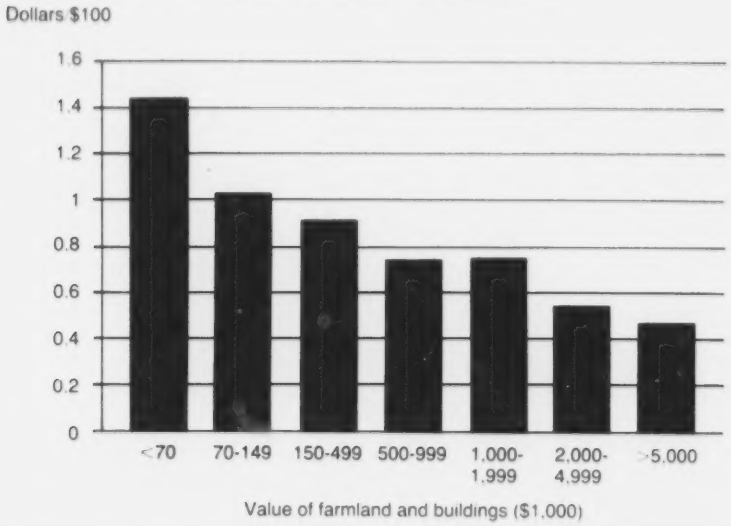
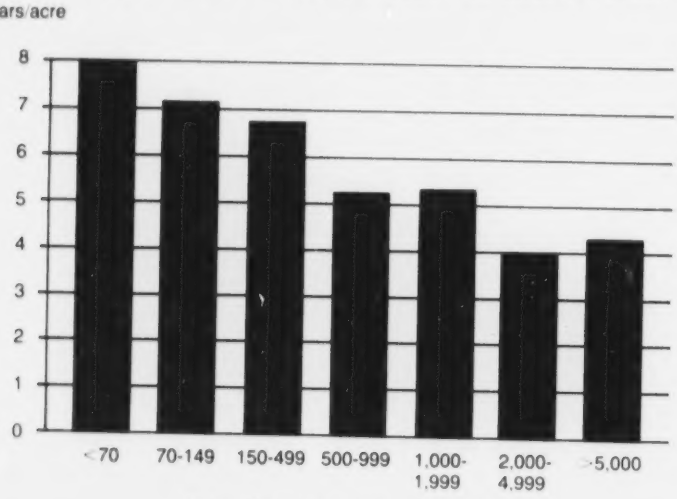


Figure 5. Real Property Taxes Per Acre, 1988

Taxes per acre follow the same general pattern as taxes per $100.



valued properties. If, for example, the farmland owners in that class of holdings valued at $5 million or more were to pay taxes at the overall average rate, their total taxes would increase from $264 million to $477 million, or from about 5 percent to 9 percent of the $5 billion real property taxes on U.S. farmland. Potentially, local government revenues could increase, small holder's tax bills could decrease, or both.

The effective rate of taxation, and the factors affecting the rate, can only be determined with careful study within the environment of each state's laws and administration. The assessment and taxing as a process has potential for generating much of the information needed for its own evaluation. That information should be organized and used.

The Real Property Tax Can Be Improved

An improved property tax system, while unlikely to solve all K-12 education finance problems, could contribute to education finance while providing other public services. Economically, the land tax has much going for it. To the extent that the quantity of land is unalterable except by the application of labor and capital, supply is inelastic. Rent is pure. A tax on land, therefore, has little effect on the level of

its use. Paul Samuelson, in his classic economics text, wrote, "Pure land rent is the nature of a 'surplus' which can be taxed heavily without distorting production incentives or efficiency" (Samuelson, p. 541). By the same reasoning, a tax on labor may deter workers from working as hard or long, and a tax on capital may lower the rate of capital formation. Income, value-added, and sales taxes are more likely to cause economic inefficiences than taxes on land rents or values. The first improvement in the tax system should be to replace taxes on labor and capital with taxes on land, where possible.

One argument for maintaining or increasing the shares of revenues raised locally is the autonomy and control over budget and programs, such as schools, it allows local jurisdictions to retain. Raising funds locally also may encourage fiscal discipline and greater citizen involvement, since the real property tax is directly related to the resources of the community.

Clearly, the real property tax will not yield revenue sufficient to accommodate all the services of local government, so other sources of revenue are necessary. However, the real property tax can be improved while remaining an important source of revenue. Here are some of the ways a real property tax can be modified to make it more acceptable if more revenue must be raised:

- Levy taxes on property in proportion to value. The presumption of equitability of the *ad valorem* tax is that land of comparable value will be taxed at the same rate whether in large or small quantities. The *ad valorem* tax is neutral in concept, neither progressive nor regressive, but deviations apparently occur.

- Eliminate exemptions to reduce the complexity of assessment and computation of levies as well as broaden the tax base. In its Census of Governments, the U.S. Department of Commerce identified major categories of land owners completely exempted from tax in eighteen states and a wide range of partial exemptions in thirty-one states. Nongovernment property exemptions result in more than 7 percent of the assessed value of nongovernment property standing untaxed (Behrens).

- Assess land and capital improvements separately and shift the tax toward land and away from improvements to provide incentive to owners. The shift from improvements to land can be achieved without individual tax increases. If, as recent studies show, buildings represent about one-fifth of farm real estate values (Canning), an increase in land taxes should permit a fivefold reduction in building taxes with no loss in revenue.

- Appraise and assess at 100 percent of market value so the assessing process is clearer to the taxpayer and calculations are not unnecessarily complicated (Behrens). Some state constitutions will need amending.

- Reduce the number of classes and categories of land for differential assessment or rates. Adherence to 100 percent of market value precludes special classes of land.
- Eliminate caps, circuit breakers, senior preferences and other forms of social engineering through the real property tax system. Provide the holders of substantial landholdings but low annual returns, the option of paying taxes with equity claims.
- Incorporate appraisal and assessment activities into a comprehensive geographic information system. Further, adopt computer- assisted mass appraisal to provide annual reassessments and improve the quality of land information available to office and citizen. Examine the possibility of self-assessment in the administration of property taxes.

For farmland, the preferential-land-use assessment is controversial. If only land, not buildings, is assessed at present (agricultural) use, the burden of tax is shifted from land to buildings and building improvements are discouraged. But building and maintaining farm buildings might be the strongest incentive to preserve farming. And preferential assessments without full value rollbacks actually encourage speculating with farmland for capital gains. America has more than two decades of experience with land- use value assessment, and reexamination, possibly reform, is in order.

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FINANCING K-12 EDUCATION IN OREGON

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Oregon has set in motion a very ambitious educational reform program at precisely the same time that it is shrinking its tax system and rapidly equalizing school spending. It is hard to imagine a more chaotic educational policy environment. And in November, Oregon voters are faced with several initiatives that could further change the fiscal landscape in Oregon.

This paper has two objectives: 1) to describe the system of K-12 education and education finance in Oregon, focusing on the impacts of four major policy shocks set in motion in the last five years; 2) to identify four school finance policy questions that face voters and legislators during the coming year.

Financing K-12 Education in Oregon

Since 1989, Oregon has initiated four shifts in educational and tax policy that are having a major impact on the organization, educational goals and financing of Oregon schools.

Equalization

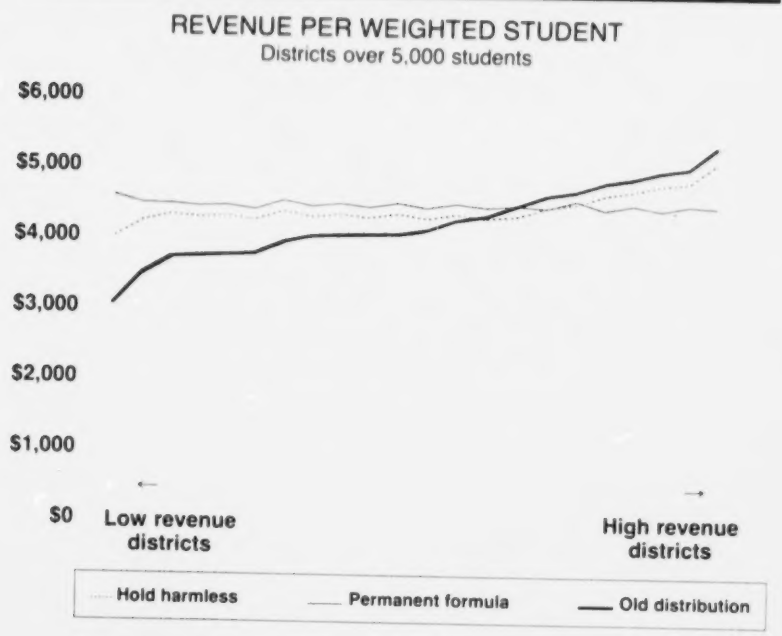
In 1987-1988, the average current expenditure per pupil in Oregon was $4,011. Around this mean was a range of $17,220 in spending from $2,241 to $19,461 (Weber). Large disparities in per pupil spending were one of the issues addressed by the 1988 report of the Governor's Commission on School Funding Reform.

The 1989 legislature addressed this issue by developing a state school fund distribution formula that essentially equalizes spending per student (Figure 1).

Because immediate implementation of the formula would have required very large decreases in school aid to some districts, during implementation, the legislature imposed caps on individual district gains and losses in funding per student. Because of the severe impact of full equalization on some large districts, the legislature has not put the full funding formula into effect yet.

Nonetheless, significant progress toward equalization has been made in the last seven years. Average operating revenues per student in Oregon in 1994-1995 are projected to be $4,184. The range in

Figure 1. Oregon's Equalization Formula



Source: Legislative Revenue Office

projected revenues per student is $7,692 ($3,842 to $11,534), less than half of the earlier range (Legislative Revenue Office, 1994a). Most districts are now within 10 percent of the state average (Oregon School Boards Association). Even though the 1987-1988 figures are not strictly comparable with the 1994-1995 figures,[1] the conclusion that the range in revenues per student has been halved in the past seven years is an accurate portrayal of Oregon's progress toward equalization.

Measure 5

In November of 1990, Oregonians passed Ballot Measure 5, an initiative that places new limits on property taxes and requires the state general fund to replace lost property taxes for schools during the five-year phase-in period.

The limit on school property tax rates phases in from $15.00/$1,000 assessed value in 1991-1992 to $5.00/$1,000 in 1995-1996. During the first two years of Measure 5 implementation, school property taxes

statewide declined 5 percent. This reduction varied among districts depending on the local rate of growth in assessed values and on how high rates were prior to Measure 5. Figure 2 shows that school property taxes generally increased in the fastest growing regions of the state and decreased elsewhere. By 1995-1996, it is projected that school operating property taxes will be about half of what they were in 1990-1991, prior to Measure 5's passage (Legislative Revenue Office, 1994b).

Given the modest Measure 5 replacement requirement in the 1991-1993 biennium (about $500 million in a $5.9 billion budget) and a significant growth in general fund revenues generated by a rapidly growing economy, the state moved aggressively toward equalization in spending per student during the first two years of Measure 5 implementation. State school aid increased 80 percent and per pupil expenditures increased 12 percent between 1991-93 (Hill and Weber). An attempt to hold high-spending districts harmless led to large increases in state aid in some districts and no district receiving less state aid than it had received before. Figure 3 shows spending per pupil increased most dramatically between 1991-1993 in the rural areas of the state.

Although Measure 5 required the state general fund to replace lost school property taxes, it did not require the state general fund to continue the same level of "basic school support," the other major source of school funding besides the property tax. (In 1990-1991, prior to Measure 5, the state provided about one third of school general operating revenues, and the property tax two thirds). Thus, while the property tax plus replacement revenue for schools continues to grow since Measure 5, the nonreplacement part of state aid is declining as it competes in the state general fund with state services.

Indeed, in 1993-1994, total school operating revenues declined 5 percent because increases in state aid were not large enough to offset declines in school property taxes.

Measure 5 has transferred to the state general fund the major burden of financing K-12 education in Oregon. In fiscal year 1994-1995, state aid will provide 56 percent of school operating revenue and property taxes only 44 percent (Legislative Revenue Office, 1994a).

Changes in Curriculum and Structure

The 1991 legislature, which convened two months after the passage of Measure 5, passed the Oregon Educational Act for the 21st Century, an ambitious strategy for providing "the best educated citizens in the nation by the year 2000, and a work force equal to any in the world by the year 2010" (Oregon School Boards Association).

This bill replaced the state's requirements for "common curricu-

Figure 2. Percent Change in School and ESD Property Tax, FY 91—FY 93

Figure 3. Percent Change in Per-Pupil Expenditure, FY 91—FY 93

Source: Hill and Weber

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lum goals" and "essential learning skills" with new "outcome based requirements" demonstrating mastery of specific knowledge and skills necessary to attain "Certificates of Initial Mastery" after the traditional 10th grade. During the traditional 11th and 12th grades, programs will be offered to help students achieve outcomes required for a "Certificate of Advanced Mastery" in one of six "endorsement areas": arts and communications, business and management, health services, human resources, industrial and engineering systems, and natural resource systems.

At the same time school districts are attempting major curriculum reform, many smaller districts are being required to consolidate. The 1991 legislature enacted SB917, which will reduce the number of school districts from 295 in 1992-1993 to 178 by 1996-1997.

Summary

During the past five years, Oregon has set in motion a set of fundamental changes in state policy that will radically affect schools. It has: 1) reduced property taxes without increasing other taxes in a way that will reduce state/local taxes as a share of income from 12.1 percent of personal income in 1991 to 10.3 percent in 1996; 2) shifted to the state the major responsibility and essentially all the decision making about school funding; 3) moved rapidly to equalize school spending per student among districts while keeping the overall level of school spending relatively constant, thus triggering large spending increases in some districts and declines in others; 4) set up an ambitious curriculum reform agenda without allocating much in new resources to implement it while requiring a simultaneous major restructuring of school districts.

Current Oregon School Finance Policy Issues

These policy decisions of the past five years have set up a challenging agenda for the 1995 legislature. This agenda is likely to be affected by several initiatives on the November ballot that would have a major impact on their budget choices.

The Fiscal Context

Figure 4 illustrates the fiscal context within which the 1995 legislature will operate. The state general fund finances state services (such as higher education, human services, corrections) and school aid. As Measure 5 rate limits have phased in for schools, the "replacement requirement" has increased from $.5 billion in 1991-1993 to $2.8 billion in 1995-1997. Think of this as the money schools need to be "held harmless" in their "property tax revenues."

What is left in the state general fund (gray shading) is what is available for school support and for state services. Between

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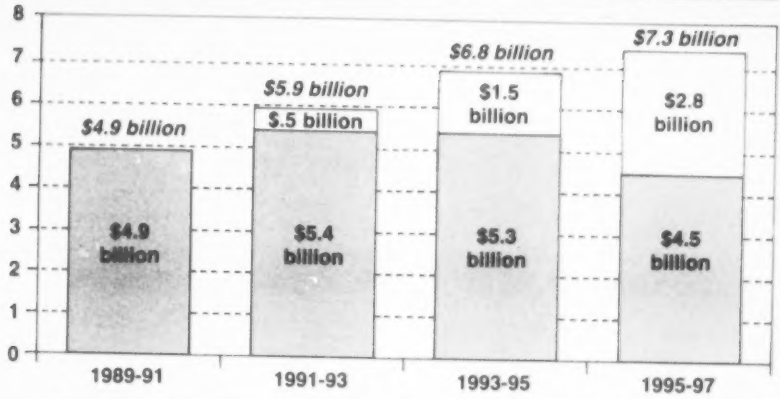
Figure 4. The Impact of Measure 5 on Oregon's General Fund Resources



Source: Oregon Department of Administrative Services

1991-1993 and 1993-1995, this amount has decreased by $.1 billion, not adjusted for population growth or inflation. It will decrease in 1995-1997 by an additional $.8 billion. Absent additional taxes, the state will have to cut current spending on state services and or school support in the next biennium.

There are four major policy questions affecting education facing Oregon voters and legislators: 1) How much should the state spend for schools? 2) How much equality in school funding is desirable? 3) What curriculum best prepares students for citizenship and the workforce? 4) What level of taxes is required to support desired public services and schools?

How Much for Schools?

The 1995-1997 state general fund will have $800 million less than in the current biennium to fund schools and state services. It will have about $1.0 billion less that it would need to provide current service levels to the 1995-1997 Oregon population. A fundamental choice facing the Oregon legislature is how much of the cuts to take from K-12 education.

Oregon voters have the opportunity in November to make this choice for the legislature. Measure 15, called "Kids First" by its proponents and "Some Kids First" by opponents, would require the state legislature to fund schools and community colleges at no less than the 1993-1995 base amount, plus adjustments for inflation and

enrollment changes. Passage of this measure would force deep cuts in state programs unless taxes were raised.

How Much Equality?

The Oregon legislature has established a policy of equal spending per student across all districts. Because moving to that goal would require large cuts in traditionally high spending districts, the state has resisted putting the formula fully into effect. Even if Measure 15 were to pass, full equalization would require large cuts in some districts. Failure of Measure 15 will make full equalization even harder.

There is some question about how tight the relationship is between spending and educational outcomes (Fisher) and, thus, about whether increasing school spending is an effective way of improving education in low-spending districts, or whether cutting spending hurts educational outcomes in high-spending districts.

There are strong political pressures, however, not to require further cuts in the large urban districts. At the same time, low-spending districts are threatening court action if the state does not implement its equalization formula in the next legislative session.

What Curriculum?

As parents and educators are beginning to realize the implications of Oregon's curriculum reform, there is growing resistance in some quarters to the changes. It is likely there will be challenges to the reform in the next legislature. At issue is what kind of curriculum best prepares students for lifelong learning, citizenship and the workforce.

How Much in Taxes?

Oregonians face two November ballot measures on taxes: 1) prohibition of new or increased taxes without voter approval; 2) substitution of a 2 percent tax on all transactions for all current taxes, probably reducing total tax revenues in Oregon.

Even if neither of these measures passes, Oregon's tax burden will shrink as Measure 5 completes its five-year phase-in, from its current level of 11.5 percent of income (placing Oregon around the middle in a ranking of the fifty states) to its projected 10.3 percent in 1996 (placing Oregon around 40th in this ranking).

Recent Oregon survey research shows that Oregonians are profoundly distrustful of elected leadership (only one in ten believes state elected officials can be trusted to do the job they are elected to do) and believe there is enormous waste in government (the average estimate of survey respondents was that 32 percent of state spending is wasted) (Sahr and Steel). In this kind of political climate, Orego-

nians are unlikely to vote for large tax increases to prevent Oregon tax burden from shrinking.

Ultimately the question facing Oregonians is whether we can achieve our statewide goals under our current tax system—whether, by taxing ourselves at 10.3 percent of our income, we can have the public services we desire and the level of public education that prepares our students for productive work and citizenship.

NOTES

1. The "current expenditure per pupil" figures available for 1987-1988 are not strictly comparable to the "operating revenues per weighted student" figures in 1994-1995. Special education students and those with English as a second language are weighted more than other students, making the number of "weighted students" about 16 percent greater than the number of "pupils."

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1994 MICHIGAN SCHOOL FINANCE AND PROPERTY TAX REFORM

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The funding and operation of Michigan's K-12 public school education system was substantially changed in March, 1994, with voter approval of a constitutional amendment and legislative adoption of twenty-four implementing state statutes. The comprehensive school funding proposal substantially reduced local property taxes; increased, and in some cases decreased, the tax rate of selected state taxes; established new state taxes; and addressed school quality improvement concerns. The reform also provided for the creation of charter schools. The reform measures increased the state's contribution for school funding, reduced the local share (property taxes), and guaranteed per pupil funding for each of Michigan's 557 public school districts.

Impetus for School Finance Reform

The impetus for the non-marginal change in the method of financing Michigan's K-12 public education system evolved over three decades. Since 1964, fourteen proposed constitutional amendments to reform school finance or property taxation, or both, were placed before Michigan voters (Harvey, Moore and VerBurg). Only one amendment to limit the rate of property tax increase and state tax collections was approved. Prior to the adoption of the school reform package, Michigan schools were financed through a complex funding formula. The formula compared a local district's property tax base wealth and taxing effort against state guaranteed per pupil funding. If a local district's ability to generate per pupil funds exceeded the state guarantee, the district was not eligible for state membership aid and was considered "out-of-formula." The districts that were classified as out-of-formula still received categorical aid funding for special education, transportation, vocational education and other targeted activities. Having property taxes increasing at the local level at a rate faster than the state membership aid guarantee resulted in 39 percent of the state's school district being out-of-formula in 1993.

The disparity in per pupil funding fueled the policy debate on school funding. The 1993-1994 spending per pupil ranged from $2,800 to $10,400, a situation the legislature and schools perceived as no longer acceptable. For the past several years, concern had been ex-

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pressed for the quality of the K-12 educational system. Political debate, both within and outside the legislature, centered on the introduction of competition in the production and provision of education through promoting "school of choice" and "charter school" concepts. The school funding debate was further heightened with the early closing of the Kalkaska School District in the spring of 1993 because of lack of funds when district voters rejected two separate property tax millage propositions.

The July Bombshell

The funding change was initiated in July, 1993, when the Michigan legislature exempted all property in the state from millage levied for school operating purposes without adopting an alternative school funding plan. The decision to abolish property taxes for schools was hailed as a bold stroke by some while others likened the political decision to "bungee jumping without knowing the length of the cord" (*The Wall Street Journal*). Intense policy debate ensued between July and December, 1993, about the appropriate mix of taxes and state revenues to be used in replacing the $6.1 billion in property taxes previously allocated to public schools.

Legislative debate focused on the elements to include in the reform package to improve the quality of education; reduce the funding gap between school districts; and determine the guaranteed per pupil funding, which taxes to raise or reduce, and methods for distributing funds to local districts. The legislature was subjected to intensive lobbying by various interest groups ranging from the Michigan Education Association to the state Chamber of Commerce. The decision to offer two funding proposals grew out of a political compromise and insured that schools would have a funding plan in place when school doors opened in September, 1994. Michigan voters approved the constitutional amendment by a margin of 69 to 31 percent.

Basic Provisions of the Reform Package

The constitutional amendment increased the general sales tax rate from 4 percent to 6 percent, established a cap on individual property assessments at 5 percent or the rate of inflation (whichever is less); required a three-fourths vote of the legislature on changes in laws related to the amount of property taxes that can be used by schools; earmarked 6 percent of the increased tobacco taxes for improving the quality of health care for Michigan residents; and limited school millage requests to two per year.

The accompanying twenty-four implementing state statutes established a statewide property tax levy for education at 6 mills on all property. In Michigan, for property taxation purposes, property is assessed at 50 percent of market value. Additionally, a local proper-

ty tax of 18 mills on all non-homestead property (property other than the principal homestead and farmland) was established. Non-homesteads will pay a minimum of 24 mills and local district voters must approve the 18 mills levy in order for the district to qualify for the district's full state aid. Local voters would be required to approve the 18 mill non-homestead levy once the district's current authorized levy expired. A new real estate transfer tax of two percent on the gross sales of real estate transactions was established. However, since its adoption, the legislature has since amended the legislation and rolled back the real estate transfer tax to 0.75 percent. Cigarette taxes were increased from $0.25 to $0.75 per package and a new 16 percent tax on all tobacco products (cigars, smokeless and pipe tobacco). A new interstate phone tax at six percent was established with an exemption from the tax provided for 800 numbers and WATS lines.

The state income tax rate was decreased from 4.6 percent to 4.4 percent. The portion of rent estimated as property taxes was increased from 17 percent to 20 percent for the purpose of calculating the homestead property tax credit for renters. Finally, a new lottery game called Keno was proposed, but has not been implemented. The state's single business tax (SBT) rate was not changed by the proposal; however, subsequent to the adoption of the school reform package, the legislature rolled back the SBT rate from 2.35 to 2.25 percent.

New Funding Formula for Public Schools

The total yield of the new taxes—local and state property tax, revenues from the state's general fund and existing targeted funding plus federal funds for schools—totaled $10.5 billion which represented a small increase (less than three percent) for education as a whole. However, the distribution of funding for schools was dramatically altered.

Prior to the new funding plan, local property taxes provided 57 percent of school operating revenue (Figure 1). Under the new plan, property taxes, both state and local, will provide around 35 percent of funding.

Prior to the school reform initiative, per pupil expenditures in the state ranged from a low of $2,800 to a high of $10,400 with 42 percent of the districts below $4,500 (Figure 2). A basic provision of the new funding plan attempts to reduce the per pupil funding gap between school districts. In 1994-1995, schools currently spending less than $4,200 per pupil will receive $4,200 or their 1993-1994 expenditure level plus $250. Schools currently spending between $4,200 and $6,500 will receive their 1993-1994 expenditure level plus up to an additional $250 per pupil. Schools spending more than $6,500 will receive their 1993-1994 expenditure level plus $160, but the state will

only reimburse the district $6,500, the balance to be raised through voter-approved supplemental millage. Local districts were authorized, with voter approval, to seek an additional 3.0 mills (enhancement millage). The funding plan eventually will establish the basic foundation grant to schools at $5,500. Future growth in the foundation grant is double indexed based on growth in state revenues and increase in the number of K-12 students.

In addition, the state will require local districts to assume retirement and Social Security costs previously borne by the state. This provision will result in a number of school districts not experiencing a net gain in revenue because of offsetting new costs. These districts may be forced to either reduce expenditures or seek enhancement millage.

Figure 1. School Fund Sources

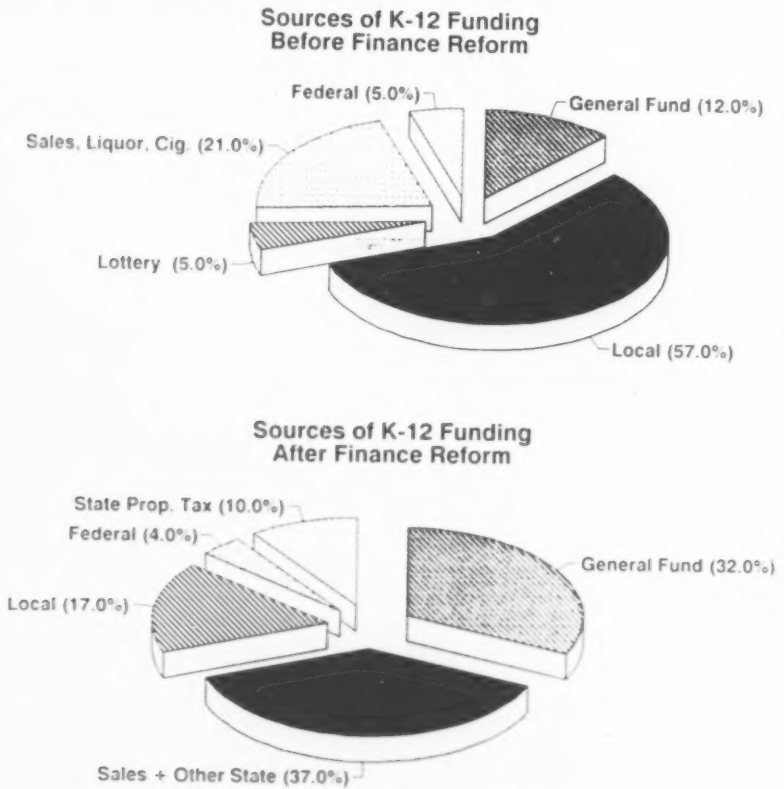
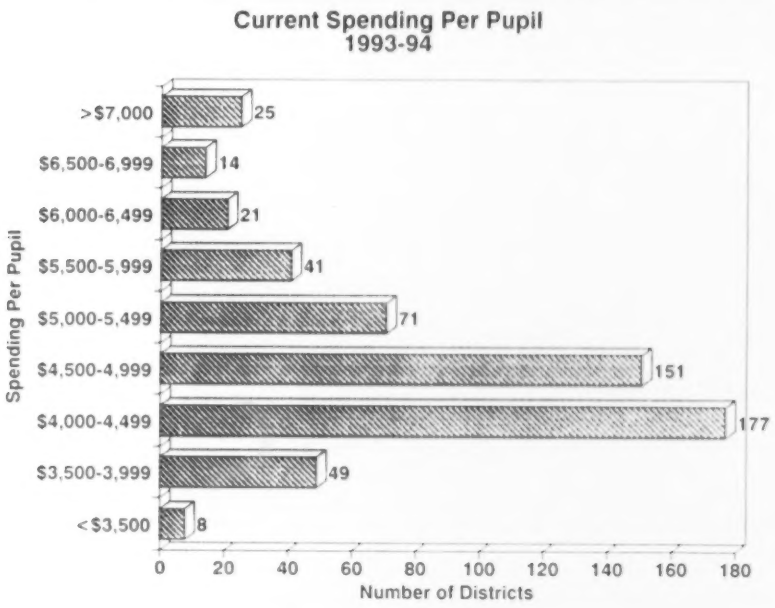


Figure 2. Current Spending Per Pupil Per School District



Source: Kleine

Impacts and Emerging Policy Issues

While the new school funding plan and property tax reform measure reduced property taxes for a majority of landowners, the plan was actually a tax shift. Total tax collections will only be reduced by net $300 million. The funding plan changes the incidence of taxation, that is, who bears the cost for funding of K-12 education. Winners under the plan were high-income households with high-valued homesteads. Losers under the plan generally were low- to middle-income families who are in a high consumption stage of life, mainly families with children who are in family household formation. These households will bear a substantially higher sales tax burden.

The funding plan had strong support from the state Chamber of Commerce and the business community. Businesses and firms collectively will bear a higher total tax burden. The interaction between the state tax system and federal tax system accounts for the anomaly. In fact, in several school districts, both homeowners and businesses will have a higher property tax burden than under the previous school funding arrangement.

While the new funding plan reduces the per pupil expenditures

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gap, a spending gap of between $4,200 and $10,400 will remain, with the gap closure to be minimal in the long run.

Many voters assumed millage votes would no longer be needed. Quite to the contrary, voters will be required to approve the 18 mill non-homestead levy and supplemental millages put forth by local school districts. Thus far, in more than 70 percent of the school millage votes, districts have been requesting supplemental millage and voters appear reluctant in a majority of the cases to approve additional millage levies.

Local governments will experience a revenue decline as a result of lower property tax collection from which they had been assessing a one percent collection fee. The impact of the assessment cap, combined with the constitutionally-required rollback of millage rates when assessment increases exceed the consumer price index, will result in the ratcheting down of authorized millage rates in the long run. Local units, in order to recapture tneir authorized millage rate once it has been rolled back, will be required to seek voter approval. Michigan county governments will also experience a revenue decline as a result of lower earnings from delinquent tax collections, assuming the same rate of tax delinquencies.

Questions remain about the impact of the real estate transfer tax on the real estate market and the capping of property assessments. The capping provision does permit a full recapture of capped value once the property is sold. Based on experiences in other states that have initiated property tax reduction measures, it appears tax capitalization occurs, resulting in higher real estate values in the long run.

School Quality Issues

As previously mentioned, a provision in the school reform program enabled the establishment of "charter schools." Schools could be chartered by any public institution—local school board, community college, or university. Denominational schools are not eligible to become charter schools. The governor estimated that 200 new charter schools would be formed over the next two years. Since the legislation was adopted, six charters have been filed. Central Michigan University is sponsoring five of the charter schools and a home school organization is sponsoring the Noah Webster Academy (Gendreau). The American Civil Liberties Union is challenging the constitutionality of the Noah Webster Academy, alleging that public funds would be allocated to a school teaching religion. A state court has ruled that whether the school qualifies as a charter school should be determined by the State Department of Education. A charter school would receive a maximum of $5,500 per pupil or the revenue per pupil of the district in which the chartered school is located, whichever is less.

Additional provisions lengthened the number of hours of the school year, mandated a state curriculum, established school performance measures, revised the funding of adult education, provided targeted funding for schools with "at-risk students," and addressed safety and security in schools.

Impact on Agriculture

The total state equalized value (50 percent of market value) of agricultural land in Michigan in 1993 was $6.5 billion or 4 percent of total state equalized value. Data obtained from the U.S. Department of Agriculture's Economic Research Service (USDA-ERS) indicate that gross property taxes per acre on agricultural land prior to the plan was approximately $34. Under the new funding plan, gross property taxes per acre will drop to $20 per acre or a 57 percent decrease. It should be pointed out that Michigan enacted a general homestead property tax credit program in 1972 and a farmland preservation tax credit in 1974. Currently, 48 percent of all agricultural land is enrolled in the farmland preservation program. The combined credits paid to enrolled agricultural landowners totaled approximately $80 million which represented 50 percent of the enrolled landowners' property tax liability.

Therefore, the new school funding plan provided the largest benefit to agricultural landowners who were not enrolled in the farmland preservation program. An emerging policy issue for agriculture is "what happens to the agricultural landowners who are currently enrolled in the farmland preservation program, but who, because of changes in school financing, now do not reap the stream of tax credits as previously provided yet are under a development rights restriction?" No doubt the legislature will be asked to address the issue in its next legislative term. Landowners enrolled in the farmland preservation program do not bear economic costs because of the school reform measure since they were insulated against property tax increases in the first place, although as the level of benefits—property tax rebates—decline, the accumulated lien from the rebates is reduced.

Conclusion

The change in funding of Michigan's 557 public school districts was accomplished through non-marginal change. It is presently premature to judge the success or failure of the enacted reform measures. The elimination of property taxes for schools enacted by the legislature in July, 1993, set in motion a series of statutory and constitutional changes that will have far-reaching impacts not only for K-12 education, but for local governments as well. The reform changed not only the method of school finance, but the incidence of taxation in Michigan, thereby creating winners and losers. Michigan

is currently experiencing above-average economic growth, thus state revenue collections have exceeded expectation, creating a small surplus for the school funding program. Most public finance observers forecast a revenue shortfall for the 1996-1997 school year. It is unlikely that revenue collections will maintain their current pace and the guaranteed funding commitments for K-12 educations will result in reductions in other state budget areas.

The impact of the adopted school quality reform measures—lengthening the school year; increasing competition through the establishment of charter schools (public school academies); endorsing a state-mandated school curriculum; targeting monies for "at-risk" students; recommending improved security measures to improve school safety; and changing the funding of adult education—is yet to be determined.

While the new school funding distribution formula closes the funding gap from $7,600 per pupil (prior to proposal) to $6,200 for the 1994-1995 school year, the funding gap will not be substantially closed in the long run. Although the foundation guarantee will eventually increase to $5,500, indexed for future years, it is expected the high-spending districts' funding per pupil will also increase, thus it is possible a $5,000-per-pupil funding gap will continue to exist.

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Sustainable Rural Policy

ELEMENTS OF A SUSTAINABLE RURAL POLICY

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The crafting of a national policy addressing the contemporary concerns of rural America is an important and challenging task. The demand for a new rural policy is driven by the fact that the economic situation of most of the one in five Americans who live in rural regions is now deteriorating in comparison to that of their urban neighbors. This, after decades when the personal incomes of rural residents were gradually approaching those of city dwellers. In addition, some of the nation's most intransigent poor live in scattered rural regions across the country. The recent decline in rural economic well-being has occurred in spite of the continued existence of national agricultural support programs and the fact that a large share of the nation's most precious natural resources are located in rural America.

The reengineering of effective rural policy is complicated by a multitude of changes in economic dependency and human migration patterns. Many rural residents have had to give up their familiar "way-of-life," seek new jobs, and move to unfamiliar surroundings in order to survive economically. Others have stayed where they are, unable to move because of a lack of knowledge and resources or because of historic cultural imperatives. All too often their economic situation has become ever more bleak.

Rural policy formulation has also been affected by important shifts in public expectations generated by more widespread sensitivity to long-term ecological concerns. All rural residents, the well-to-do and the poor, have been forced to break familiar habits and practices in order to accommodate the increasingly intrusive demands of policies aimed at improving "public well-being." In the process, all have given up a bit of their treasured sense of individual independence. In short, those who live in rural America know that things are not what they used to be. Neither is the broader setting in which rural policy is to be forged.

Facing the Facts

If a new and effective rural policy is to be crafted, policymakers must face the fact that rural America has changed a great deal in recent years. Four critical differences come immediately to mind: 1) continuous restructuring of the global economy has had a strong impact on the competitiveness of most rural industries; 2) rural regions

are now much less homogeneous than they once were; 3) there is increasing national emphasis on environmental sustainability; and 4) rural residents are becoming ever smaller political minorities across the United States.

The first two changes, the impacts of global economic restructuring and the increased diversity of rural regions, have been widely treated elsewhere in the literature (Brown et al.; Flora and Christenson; Joint Economic Committee). For the most part, they are generally accepted as fact although not always accounted for in policy development. They will be dealt with in only a cursory manner in this paper. The latter two, the increasing national emphasis on sustainability, and the decline in rural political emphasis, will receive more attention.

The Consequences of Global Restructuring

Throughout most of its history, rural America has been largely dependent on its abundant natural resource base for economic sustenance. Farmers have tilled its soils, timber workers have harvested its forests, and miners have extracted its minerals. For many years, these natural-resource-based industries, especially agriculture, have been the dominant source of rural family income. But increased production efficiency and global restructuring have had a tremendous impact on the economic reality of most rural regions. Fuller et al. put it succinctly: "Global restructuring . . . can be simply characterized by the changing pace and scale of global economic and political linkages and the profound reorganization of peoples' daily lives and lifetime career paths" (p. 1).

The growing influence of international financial markets; shifts in the spatial structure of manufacturing industries; major changes in the scale and structure of retailing; rapid expansion in the demand for services; increased human mobility through improved transportation; dramatic developments in telecommunication; and substantial improvement in the incomes and life expectancy of many of world's elderly challenge the autonomy of all regions and nations (Fuller et al.). As a result, rural America is now more economically dependent on employment in manufacturing and services; and on income from investments and transfer payments than it is from employment and income derived directly from agriculture (U.S. Department of Agriculture, Summer, 1993).

Rural America can no longer rely on national farm policy as its primary base of income-oriented policy. Sound farm policy remains an important part of rural policy, but it is far from sufficient to address even a small portion of current rural concerns. Contemporary rural policy must be more comprehensive if it is to be effective. Among other things, it must address issues relating to nonfarm economic development including public infrastructure and nonfarm finance.

Global economic and political restructuring is not at an end. Quite the contrary, the rate of international economic change is apt to increase, thus having an even more profound effect in the future on the lives of all people, rural and urban. If a reengineered rural policy is to have any length of life, it must accommodate this economic and social change.

Rural Diversity

Rural America is extremely diverse in sources and levels of economic well-being (Brown et al.; Flora and Christenson). Roughly 22 percent of its nonmetropolitan counties are considered farm dependent; 40 percent manufacturing dependent; 20 percent are retirement dependent and the remainder some mixture of income sources (U.S. General Accounting Office, 1993; Reeder and Glasgow).

While farmers in general have higher incomes than the average American, many rural residents are the poorest in the nation. Numbered among the poorest are many African-Americans in the Delta South, Hispanic-Americans in the southwest, scattered bands of Native-Americans in the Great Plains and the southwest, and Caucasian-Americans in remote rural regions throughout the country (U.S. Department of Agriculture, Fall, 1993).

The quality of human resources is also irregular across rural regions. Educational levels vary from those with easy access to high-quality educational systems, to those with very poor educational institutions. Dropout rates are near zero in some rural communities and only a few graduate from high school in others (Hobbs; Long). Access to adequate health care is irregular at best. Many rural residents are well-covered by health insurance and near first-rate health care providers while others remain uninsured or at great distances from even rudimentary health care. Some rural residents are well-attended by 911 emergency services while others are essentially on their own (U.S. Department of Agriculture, Spring, 1993).

The geography of rural regions is equally diverse. Access to economic and social opportunity is readily available to most rural residents who live within an easy commute of cities of 15,000 or more people. These communities are sufficiently large to provide the amenities and services necessary to attract or sustain good nonfarm employment opportunities. They are large enough to support good health care facilities, higher education institutions, job training agencies and diverse cultural opportunities (Deaton et al.). Today, one in four rural residents lives in more remote regions where the provision of basic economic and social institutions are quite costly on a per capita basis (U.S. Department of Agriculture, Fall, 1993). Although urban areas contain a large share of the nation's poor, they do not suffer the problems associated with geographical remoteness.

Many rural residents are limited by cultural imperatives in their

capacity to migrate to places of greater economic opportunity. An attachment to the land—the foundation of many Native-American cultures, but also a strongly felt part of the values of most small farmers and timber workers—makes migration to urban regions extremely difficult for some. Thus, the consideration of place remains a powerful factor in the development of rural policy.

Any reengineering of rural policy must account for this great diversity. "One-size-fits-all" programs will not accomplish desired rural policy goals. Current initiatives, focused on providing assistance to the 500 most economically-depressed rural counties, may be a step in the proper direction (Stauber). Care must be taken to recognize the great diversity existent within these counties and the fact that many rural residents in the remaining 2,600 + U.S. counties are also in need of some attention.

Sustainability as a Policy Objective

The objectives of national policy are driven by contemporary problems and guided by generally accepted human values. As problems change, so do the concerns of policymakers. As values change, so do the assessments of contemporary problems and the range of acceptable solutions.

Castle indicates there have been at least three distinct policy eras relating to rural America (1993, p. 14). During the first era, rural policy was focused on overcoming space, encouraging settlement and creating opportunity in rural areas. Mail service for rural areas, rural roads, and the creation of land grant universities were all aspects of rural policy in that era. The second era, which began at the turn of the century, emphasized managing forests for long-term economic use and the development of water for the creation of economic opportunity. The third era, which started in the depths of the Great Depression, saw the start of public support for rural electrification, soil conservation, farm credit and agricultural price supports.

Castle argues that these policies were, for the most part, designed to benefit farmers and other rural residents. These policies were accepted throughout the country because of a general desire for expansion of the nation's wealth through settlement of rural regions and to assure an adequate supply of food and fiber for all. Castle goes on to argue that conditions have changed and so must rural policies.

The current abundance of food and fiber, as indicated by government farm commodity purchases and payments to landholders for not producing crops, has changed the rural policy environment. Many people are now questioning the need for continued government investment in production-enhancing technology, even though it may be cost effective. Furthermore, there is growing concern with

the long-range social and environmental impacts of many of the production practices in current use. This concern relates not only to agriculture, but to forestry, mining, manufacturing, construction, tourism and all other economic endeavors.

Sustainability is a popular concept that has risen largely out of the growing concern for the environment (Batie). Perhaps the most often-cited definition of sustainability is, "meeting the needs of the present, without jeopardizing the ability of future generations to meet their needs," contained in the 1987 report, *Our Common Future*, produced by the United Nations World Commission on Environment and Development (Johnson and Bauen; van Kooten, pp. 162-187). The concept of sustainability has become a central part of far-flung policy discussions.

The U.S. Department of Agriculture (USDA) has used the term in referring to the need for sustainable rural development policy which "focuses on rural development efforts that combine the creation of economic opportunity for poor or declining communities with efforts designed to restore or protect important ecological resources" (Stauber). This usage addresses both the issue of economic disadvantage and environmental protection.

The concept of sustainability has become quite popular in reference to systems of production agriculture. For example, the U.S. Food, Agriculture, Conservation, and Trade Act of 1990 states that sustainable agriculture is: "An integrated system of plant and animal production practices having a site specific application that will, over the long term: satisfy human food and fiber needs; enhance environmental quality and the natural resource base upon which the agricultural economy depends; make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls; sustain the economic viability of farm operation; and enhance the quality of life for farmers and society as a whole" (Helmers and Hoag).

Similar definitions could and probably have been applied to a wide spectrum of industries besides agriculture. It appears that to "sustain the economic viability of farm operation" implies that the current number of farmers should be maintained. How realistic is the expectation that national policy can sustain the current number of farmers, grocers, autoworkers or any other segment of the economy for long? Sustainability does not imply permanence for all occupations or communities (Fuller et al.).

Fuller et al. introduce the concept of community involvement in their description of sustainability. They, like others, indicate that sustainability is "a shorthand way of encompassing the range of issues that need to be included in our development agenda as we face up to the social, economic and environmental realities of our times—and those of our children" (Fuller et al., p. 41). While most of

their arguments parallel those of the others cited here, they make the important additional point that sustainable development programs will fail if left solely to the experts. They argue, "Community is the prerequisite condition for the reinforcement of sustainable attitudes and practices. Only when people feel collectively linked to a positive future is a rationality of sustainability likely to replace a rationality of expendability and impermanence" (Fuller et al., p. 45).

In an article addressing the goals of the Endangered Species Act, Eisgruber refers to sustainable development as "taken to mean a positive rate of change in the quality of life of people based on a system that permits this positive rate of change to be maintained indefinitely" (Eisgruber, p. 4). He postulates that the "quality of life is determined by the magnitudes of the natural resource endowment, the technical resource endowment, and the institutional resource endowment" (Eisgruber, p. 4). This definition introduces two important concepts: 1) future generations should expect a higher quality of life; and 2) although natural resource endowments may be relatively fixed, technical and institutional endowments are not. As a consequence of technological development and institutional change, future generations may actually have a higher quality of living even after reductions in the current endowments of natural resources. However, it may be necessary "to rethink social institutions that generate technologies and production systems that are destructive of ourselves and the environment" (Fuller et al., p. 43). Sustainability is a dynamic concept, far from simply maintaining the status quo.

Rural Regions as a Political Minority

Gone are the days when state and national legislative bodies were dominated by rural political interests. Today the U.S. Congress and most state legislatures are more strongly influenced by urban and suburban interests. Less than two percent of the people in the United States actually live on farms. A high percentage of these farm families are now more dependent upon nonfarm income than from farming (U.S. General Accounting Office, 1993). Twenty percent of the members of the House of Representatives are from districts with nonmetropolitan voters in the majority. Fifteen of the fifty U.S. Senators are from states with a nonmetropolitan majority (Jahr). While the influence of farm interests is waning, the broader rural population continues to represent a strong minority.

This does not mean that farming, forestry and mining-related businesses are unimportant. Quite the contrary. The entire nation depends on them and they are primary income sources in some regions. It simply means that in politics, votes count. Political representatives must pay close attention to the specific interests of those they represent. It is entirely logical that they invest more time and political capital, including their policy choices, on behalf of the largest share of their constituency. Rural residents as a whole are

likewise a minority in the United States. Nonetheless, they constitute a majority or a strong minority share in many more congressional districts and states than do farmers, timber workers and miners.

Although the collective political influence of all rural Americans is potentially stronger than that of agricultural interests alone, it will be much weaker than that of urban residents for the foreseeable future. Thus, in order to gain national support, policies aimed at the concerns of rural regions "need to reflect the unique features of rural regions and societies, but they must not be viewed in policy context as being independent of the remainder of the nation and its economy" (Castle, 1992, p. 7). "Many of our current rural policies are justified by social norms or concepts that may no longer be fully valid for significant, growing parts of the American electorate" (Stauber, p. 3).

In order to gain the necessary political support on a sustained basis, future national political actions aimed at specific rural concerns may be achievable only as a part of legislation aimed at broader national problems. For example, programs aimed at improving rural housing are likely to become a part of broader housing legislation rather than as a part of a rural bill. Separate legislation aimed primarily at agricultural concerns, such as the farm bill, may be unable to garner sufficient political support for passage. Should this become a reality, it will be imperative that most national legislation be analyzed for its differential impact on rural and urban areas and appropriate compensation considered.

Programs aimed only at rural problems may experience some success in the near term but are apt to encounter serious political difficulty in the long run. In all cases they will be subject to intense scrutiny regarding issues of productivity, social stability and environmental sustainability. At this time, it is difficult to perceive of the farm bill as only a small part of a broader national economic improvement bill, but the time may come when it will be necessary to justify farm programs and supportive agricultural institutions in a manner that parallels those of other industries.

A New Sustainable Rural Policy

The time may be ripe for the formulation of new rural policies that break away from conventional concepts such as rural primacy, technological necessity, and price dependency. This is not to suggest that these concepts were or are totally inappropriate. But, by viewing rural conditions in the light of these concepts, policymakers may restrict their vision of the full range of policy alternatives. In today's policy setting, the very process of assessing rural policy objectives as a part of a set of national goals is more likely to lead to a more sustainable rural policy.

In their most rudimentary form, the national goals of the United

States of America simply assure everyone in the nation the right to life, liberty and the pursuit of happiness. To achieve these ends it is generally agreed that everyone should have access to a good education, economic opportunity, a clean environment, cultural opportunity, ease of transportation, unfettered communication, adequate health care, basic housing and personal security. These goals can clearly serve as the goals of a new rural policy.

The development of a national policy that assures people in all regions that their local governmental and quasi-governmental bodies (e.g., village boards, industrial development corporations, business associations, planning commissions) are well-informed when making local policy decisions is a prime example of a national policy which, if properly implemented, would serve rural regions well. It is generally conceded that the most critical concern in rural regions today is the lack of well-informed local leadership (U.S. General Accounting Office, 1992; Stauber). Community groups throughout the nation are constantly attempting to solve unique local problems. Unfortunately these efforts all too often lead to frustrating failure. Either the problem is not properly identified, the facts are wrong, the full range of options not known, or an inappropriate approach taken.

Rural regions are at a distinct disadvantage in accessing the requisite knowledge to help them make proper choices when compared to their urban counterparts. First, because of their smaller population and less diverse industrial base, rural policymakers tend to possess a narrower range of knowledge. Second, access to the needed knowledge is reduced by sheer distance; rural areas are generally far from centers of specialized information and technical assistance. Third, rural areas simply have less financial capacity to hire specialists in public finance, economic development, natural resource assessment, human resources and other fields to help them in decision making (Pulver and Dodson). A different but equally important set of disadvantages restricting knowledge access might be identified for some urban neighborhoods. If all areas, urban and rural, are to share equitably in America's prosperity, these disadvantages must be overcome.

A national policy focusing on continuing education and technical assistance for local decisionmakers would cost relatively little and serve as the foundation for sound sustainable development. The unique disadvantages of rural regions and urban neighborhoods could be accounted for. There are several excellent case examples that have demonstrated the value of this kind of investment (Pulver and Dodson). This is consistent with the historic national value set which argues that full knowledge is a fundamental aspect of effective democratic and free enterprise systems.

Similar analyses might be applied to issues of access to safe water, telecommunications, health care, highways and bridges, environmental protection and other items high on the national agenda.

Unique rural problems and solutions could be defined in the process. The chances of inadvertently injuring rural regions through ill-informed national decisionmaking (e.g., lower hospital reimbursement rates in rural regions) might also be reduced. Thus, sustainable rural policy could become an integral part of national policy.

Summary

In summary, to be sustainable, rural policy must be flexible enough to accommodate continuing changes in global structure; sufficiently targeted to address the unique concerns found in diverse rural situations; provide for long-term growth in human living standards through natural resource management, technological innovation and institutional change; and attract political support from both rural and urban residents. This will require more active participation and cooperation in policy formulation by citizens of the wider rural community; increased interaction between rural and urban policymakers; and more holistic consideration of investments in production, ecological and institutional innovation. Farmers, timberworkers and miners will need to seek common ground and build alliances with others who have broader agendas (e.g., rural developers, environmentalists, human rights activists). Public and private sector scientists with an interest in agriculture, the environment and other rural related issues, will need to collaborate more in order to be fully aware of the broader consequences of their work. As a consequence, the charting of a new and more sustainable rural policy poses a tremendous challenge for everyone concerned about the future well-being of rural America.

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DEVELOPING COLLABORATION IN RURAL POLICY: LESSONS FROM A STATE RURAL DEVELOPMENT COUNCIL

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Collaboration is a much-used word these days. Why? The need for collaboration is being driven from several directions. Policy issues are increasingly diverse and are increasingly viewed from a systems, or holistic, perspective. Words such as *integrated*, *comprehensive*, *watershed*, and *ecosystem* are creeping into the planning lexicon. Framing issues in such a broad way makes strategic sense, but creates confusion and conflicts among service deliverers with overlapping missions, authorities, programs and service areas.

In addition, budget constraints operating at the local, state and national levels mean that no single agency can craft effective solutions to complex problems. This creates a powerful motivation for working together. Finally, there is renewed interest in making government more effective by being more attuned to customer needs. Citizen customers are best served by involving them in decision making early and often, another reason to forge partnerships.

What is meant by collaboration? It is not cooperation, in which authorities inform others of what they plan to do anyway. Nor is it coordination, in which authorities share information and alter what they plan to do anyway to mesh with what others intend to do anyway. *Collaboration involves committing decision-making authority and resources to a group of stakeholders with a shared interest in taking action on an issue.* This is not easy to do. It is risky to voluntarily relinquish control. In addition, collaborations seek to include all stakeholders and to respect all viewpoints.

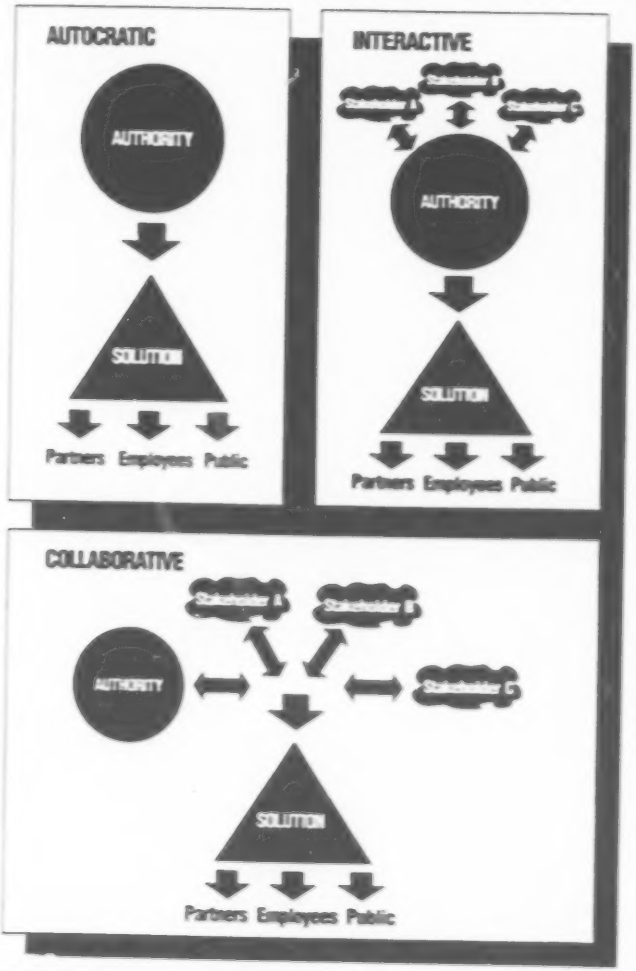
Figure 1 illustrates three planning models (U.S. Department of Agriculture, p. 7). Note that the interactive model is the dominant method of public involvement today. Agencies develop plans, hold public hearings at which they inform citizens and receive their comments, then formulate responses and revise their plan. Decision-making authority is retained in the agency. In the collaborative model, the stakeholders come together as a community of interest and share decision making.

National Rural Development Partnership

State rural development councils (SRDCs) are a modest invest-

ment in reinventing government with a collaborative model. SRDCs were created as part of a Bush administration six-point Rural Development Initiative. Proof of their effectiveness as a nonpartisan vehicle for sharing information and catalyzing collaboration is the retention of the SRDC network under the Clinton administration National Rural Development Partnership. There are currently thirty-nine state rural development councils working with a National Part-

Figure 1. Planning Models



Source: U.S. Department of Agriculture, p. 7

nership Office and the National Rural Development Council in Washington, DC. The majority of funding is provided by a consortium of seventeen federal agencies, with the U.S. Department of Agriculture in the lead.

The Idaho Rural Development Council (IRDC) is one of the oldest. It was conceived with the passage of the 1990 farm bill and held its initial meeting in April, 1991. It is the only SRDC that originated independently from the national initiative, operating for eighteen months without budget or staff, because we saw the need to link rural development efforts (Gardner et al.) The IRDC took shape in two strategic planning retreats held at the Council of Governors' Policy Advisors Rural Policy Academy. The IRDC mission is:

> *. . . to strengthen communities and improve the quality of life for rural Idahoans by providing a framework for cooperation, collaboration, and partnership-building to use the available resources of the private sector with those of the federal, state, local, and tribal governments.*

The word "available" means the IRDC recognizes the continued presence of budget constraints in the rural policy environment. ". . . providing a framework for cooperation, collaboration, and partnership-building" is the role that the IRDC plays. Thus, it is a *wholesale* entity whose customers are its members. It serves by acting as an information clearing house, a referral agent, a neutral meeting place and a mechanism to germinate new collaborations. The IRDC does not deliver services or grants directly to rural Idahoans, but works through its member organizations.

Lessons in Collaboration

Because collaboration for many of us is a relatively new problem-solving approach, I would like to spend the rest of this paper describing some of the lessons that members of the Idaho Rural Development Council have been learning about collaboration. There are dozens of community-based organizations around the country learning similar lessons. Many of these lessons were described by members of the IRDC Board of Directors at a recent retreat. (Chynoweth provides a good guide for practitioners seeking to lead collaborations).

Lesson 1. Not All Share the Same Paradigm of Community Development

We found early on that members came to rural development from several different perspectives: public and private sectors; different levels of government; providers and consumers of services. We discovered five different types of member orientation to rural development—economic development, natural resource management,

human services delivery, loan and grant administration, and general government. This reflects the current paradigm of creating top-down bureaucratic structures with narrow slices of authority.

That dichotomy was not sufficient. On occasion, we have also noted the differences between process- and project-oriented people. We need both types in rural development, though they often do not seem to understand or appreciate one another. An article by Bill Traynor that described two paradigms in community development was useful. These two different orientations explained some of what we were observing.

The Technical/Production Paradigm describes the viewpoint of many project-oriented community development professionals and the local officials with whom they work. This is the dominant view of community development today. Here are its major points:

Technical/Production Paradigm

- Views community residents as clients who passively receive products and services.
- Views development as a technical process of deal making.
- Values technical/professional skills over community participation and leadership.
- Measures performance by units created.
- Technical and financial support is tied to projects rather than community organizations.
- Opportunity and technical/financial feasibility more important to project selection than community need/importance.

The Empowerment Paradigm has been around for some time, but has been less widely recognized. However, its emphasis on building strong local organizations to shape their future has been gaining acceptance recently. This paradigm is the reason the IRDC listed leadership development among its top challenges, and it explains the work we put into holding Community Leader Forums around the state to build capacity and encourage peer learning networks. Its major features are listed below:

Empowerment/Consumer Planning Paradigm

- Emphasizes building organizations and power over building structures.
- Views development as a broad, citizen-led effort to direct and shape the community's future.
- Sees community residents as consumers of products and services and as potential leaders.
- Uses anticipatory leadership to identify and create opportunities, not wait passively.

- Advocates for resources to overcome technical/financial constraints to community priority projects.
- Uses professionals and their organizations to carry out projects.
- Produces process outcomes that are difficult to measure.

These two paradigms were played out as an IRDC task force developed an Americorps application for community development. In discussing where to place student volunteers most effectively for rural Idaho, there were several who advocated placing individual volunteers at the service of local Gem Community organizations. There they would work on implementing whatever projects that community had identified as important, serving as a local contact and initiator. They were advocating empowerment.

In contrast, others suggested placing volunteers as regional specialists in certain types of projects, e.g., a forestry major working on community tree-planting projects or an architecture major focusing on several downtown revitalization projects. This specialization would be a more efficient way to get projects done. Since the community had identified the problems, it was argued this approach was sensitive to local needs.

Lesson 2. Collaboration Creates Social Capital

We became confused. It was very possible that the regional specialist approach might be a more efficient way to deliver projects into a community. Yet this approach did not seem satisfying because the volunteer was not located in each community directly working for the local group. What was missing?

The answer came from Dr. Cornelia Flora, who spoke to the IRDC Community Leaders Forum in Pocatello. The empowerment model creates more social capital. *Social capital is the interactions, linkages, networks, and trust that help individuals in a community coordinate and cooperate for mutual benefit.* It is the mutual respect, the trust, the group confidence, the momentum created by the successful completion of one project that encourages the group to tackle the next problem.

Dr. Flora called social capital a necessary precondition for effective government and community development. Its presence enhances investments in the other two types of capital—physical and human capital (Putnam).

Social capital is a peculiar resource, because it diminishes if not used and grows when it is used. In other words, success breeds success. But it does take considerable time and effort to create. Much of the groundwork is already laid in small towns, because people there already see one another in several different roles and places, e.g., in church, at the grocery store, at the football game, in the Rotary Club.

This concept of social capital is important because it explains why the empowerment model seems so satisfying to those involved. It puts a name on the intangible camaraderie created by community-based projects.

Social capital can help justify the large amount of technical assistance that a rural practitioner may need to invest in a community group to help them get organized and moving. This is important when agencies are asked to evaluate the outcomes from their programs. Many of the outcomes of community-based programs are process-achievements, such as organizations formed or new partners involved, that do not have measurable results. Yet they are important for creating social capital. Many of the activities of the IRDC have to do with creating social capital within the rural development community of Idaho. IRDC meetings are designed with the idea of building social capital within the IRDC itself.

Lesson 3. Not Everyone Shares the Collaborative Spirit

Our culture is steeped in the autocratic model. We are taught early on that successful leaders are hard-chargers who accumulate power. Agencies are embued with formal planning processes that derive from a central authority. The notion of finding success in shared decision making can be foreign. In the Americorps application example referred to earlier, we experienced that paradigm conflict. Our attempts to collaborate with the state commission in order to develop a more competitive application to serve rural Idaho were misunderstood as an attempt to exert influence over the commission and subvert their process. Their paradigm required an arms-length relationship and formal procedures.

Some people have sampled IRDC activities but have not seen the potential of a persistent investment in network building. This is especially hard for advocacy groups accustomed to working in the political arena. Yet there are some individuals who are capable of more than one operating style. They know the IRDC offers a chance to approach policymakers in a patient, nonjudgmental way. Eventually, the pay-off is incremental change from the inside, based on personal trust, even while they push as outsiders to change policy in the political realm.

Lesson 4. Collaboration Is Based on Personal Trust

No one will commit resources or authority to a group they do not know. Each group member must trust that the others will rise above their personal agendas to address the common good in a responsible manner. There also needs to be trust to share knowledge and opinions openly. It is this trust building that requires so much investment of time. This is why time spent socializing together is time well

spent; it allows people to show a different side of themselves. For example, a new collaboration we have begun that attempts to create a wood manufacturing network will require a larger investment of time because it involves people from Montana as well as Idaho. We simply do not know each other well.

Trust building is also the reason that many collaborative efforts begin with seemingly inconsequential issues. Trust is best built with less at risk. An early IRDC project had to do with encouraging timber bridges; another concerned community tree-planting programs; a third was a straightforward survey of community water and sewer rates. Over time these have led to more substantive and strategic endeavors. In the Montana example, a collaboratively-organized conference on value-added wood products built a foundation of working relationships for the network project. Other current collaborations include a Community Mandates Pilot Project, a Rural Telecommunications Education Project, and a series of rural leadership capacity-building efforts.

Lesson 5. Check Egos at the Door

For many people, who gets the credit is as important as what gets done. The IRDC would accomplish little or nothing without the contributions of its members. The IRDC Board of Directors wisely decided on a low public profile from its inception. Unlike many other state rural development councils, there has been no public relations effort to inform rural Idaho of our intentions or our accomplishments. As a wholesale entity, IRDC success does not depend on public awareness. In fact, the public is likely to misinterpret our networking role and assume the IRDC delivers services.

The IRDC avoids perceptions of competition with its member agencies by giving them credit for accomplishments. This policy has paid off in willing partners. Similarly, rather than create duplicative committees, we have recognized existing interagency coordinating efforts as affiliated work groups. The IRDC does not attempt to control their activities, but simply offers a communications link to the larger council. For example, the IRDC has helped recruit new partners, has provided meeting facilitation, and has served as a communication vehicle for a large interagency working group on rural health care.

On a personal level, it is hard to let go of control and credit. In a successful collaboration everyone feels they have contributed. In one IRDC project, local leaders are still convinced they initiated the project. In very popular projects, there is a risk of partners claiming credit in public and forgetting to share it with the others. Abandoning a collaboration to chase glory can destroy trust in a hurry.

Lesson 6. Collaboration is Best Learned Through Experience

After establishing a sense of shared purpose, there are two ways to foster collaboration. Some groups focus on relationship building and process by studying and planning together. The IRDC has a bias for action. We prefer to learn collaboration by doing it on projects of increasing importance and complexity. The sense of team accomplishment is the biggest reward for working together. Experiencing the difficulties of teamwork reinforces the learning.

Believing that the best way to learn collaboration is to begin, the IRDC is leaving a series of completed tasks in its wake. We have also left some failures. Our Americorps application failed as a project, even though it succeeded as a collaboration, because it created a functioning team that overcame several obstacles.

One could argue that some of our activities were not the most strategic to our mission or to our seven challenge areas of isolation, community leadership, restructuring the economy, natural resource utilization, infrastructure, education and health care. However, we have had projects that allowed players in each of these areas to come together and learn about one another while getting something done. We have discovered and filled several gaps in rural service delivery in the process.

Lesson 7. Different Perspectives Enrich a Collaboration

The IRDC experience has shown that different perspectives *do* enrich a collaboration. The cliché is true. We each have different skill sets, different life experiences, and different perspectives to offer a collaboration. The sum is greater than the parts, and no one person is responsible for success or failure. A diverse team may redefine a problem. For instance, an Hispanic representative of a development finance work group made a convincing argument that making culturally-appropriate technical assistance available could tap the economic growth potential of an often-overlooked segment of the community. Creative solutions often result from collaboration. In one training session, rural arts council staff helped community leaders draw pictures to learn about shared values.

Lesson 8. A Little Grease Helps Collaborative Wheels Turn

State rural development councils have small amounts of discretionary funds that can be used to increase the capacity of the Council. Idaho's experience has been that contributing very small amounts to encourage a collaboration can jump-start what becomes a substantial effort. The first commitment of resources makes the possibilities for success seem real. In addition, it helps legitimize the

IRDC as a player in the process who can make things happen. The Council is careful not to portray or operate this as a grant program, but to use its discretion where an action is strategic to our mission.

This notion of pump-priming works well for community-based collaborations, too. Small, flexible grants to help accomplish community priorities serve as an incentive to community groups far out of proportion to the size of the grant. This has been the case in Idaho with $10,000 Gem Community Action Grants offered as a reward for community certification. Thirty-six grants totaling $353,000 led to completed projects valued at $2.6 million. Small U.S. Forest Service rural development grants and even smaller Resource Conservation & Development area (RC&D) discretionary seed money have similarly generated a lot of enthusiasm and achievements in rural Idaho.

Lesson 9. Drawbacks are Time Demands and Measurable Outcomes

The only criticisms we have encountered to the collaborative approach are that each activity involves substantial commitments of time by diverse members before success becomes apparent. Some of this time is later saved in not having to sell a plan of action or coerce others into contributing to it. Implementation tends to flow easily because all members see their roles and voluntarily do their tasks. Yet the cumulative time demands of working together on many issues takes its toll on agency staffs who shoehorn these projects into their workload.

The lack of quantifiable outcomes has several roots. Many IRDC accomplishments can be found in the process: information was shared more broadly; diverse parties were involved; customers were consulted. Additionally, many IRDC projects empower others with information to act, but leave the responsibility to act and change with the individual. Another significant issue is that horizontal networks have no central (and limiting) hub that can monitor all resulting actions. For instance, an IRDC survey found that one- third of members had been in partnership projects that were initiated through the IRDC, but not done as an IRDC project. This is to be encouraged. Decentralized networks are empowering and efficient, yet they frustrate funders who demand accountability. Perhaps the best measure of success is the satisfaction level of the members of the collaboration, which is why we conduct a membership survey.

Lesson 10. The Opportunities for Collaboration Are Numerous.

The farther we advance on the learning curve, the more we realize there is to learn, and the more we find possible to achieve for rural Idaho through collaboration. An arts representative and a health expert share a drive across the desert and return with an idea to use theatre to teach youth about health risks. The director of agri-

culture sees a way to use insects to control noxious weeds and create jobs for Native Americans at the same time. Conservation interests, regulators and farmers explore ways to coordinate farm plans. Utilities and a city association organize workshops on telecommunication.

The Idaho Rural Development Council may be a good example of the collaborative model at the state level. We strive to build top-down support for bottoms-up initiatives. However, there are hundreds more community- based groups in rural America grappling with their futures. Most are nonprofits or ad hoc groups like community development corporations, forest service action teams, grassroots sustainable development groups, groups concerned with the provision of health care, groups of environmentalists and land users working out resource management issues.

The more we work together, the more traditional turf lines fade. Connections between issues become apparent. The number of potential partners on any project multiplies. Problems are redefined and new solutions emerge. Collaboration is not easy, but building a sense of community to work together may be the best way to make progress for rural Americans in a fragmented, complex, and often paralyzed, world. I encourage each of you to get involved and begin to learn collaboration by doing it.

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DIVERSITY OF RURAL PLACES—TEXAS

David D. Field
Dallam County, Texas

Government is like a big baby that never grows up! This is a truth that can be demonstrated by this simple statement: "When government is bad, we expect it to change itself." Not only is this statement ludicrous, but it disobeys the Second Law of Thermodynamics which, put simply, states that any system left to itself will always move from a state of order to a state of disorder. As a pragmatic optimist, I can safely say the federal government is hopeless. State governments are also hopeless on a smaller scale, but you can still change local government. It still responds to the squeaky wheel.

The only thing worse than an armchair quarterback is an armchair expert on government, big business, education, or any other social or political dilemma. In solving the problems of rural areas there is no room for those who want to sit around debating and analyzing those problems. There is only one solution. Look on the up side, not the down side, and start where you are. The independent nature of rural people will prevent rural communities from ever uniting to become a single special interest group. Therefore, some local person or group must take the initiative to work together to start somewhere. Community leaders must recognize that the futures of rural business and agriculture are intertwined. Challenges, such as providing effective rural education and adequate health care delivery in rural areas, must be addressed collectively even when in conflict with the generally independent nature of rural people.

The town of Dalhart, Texas, began addressing these issues in 1988 through a series of public meetings held with the help of the Texas Agricultural Extension Service and a grant from the W.K. Kellogg Foundation. We soon established what the most critical rural development policy issues were and developed economic growth strategies in response. Since no single town or local entity could financially support any approach on a grand scale, we had to look at our "economic geography."

Governmental units formed a century or more ago need the perspective of economic geography, the essence of community development and strategic planning. Dalhart sits astride the boundary of Dallam and Hartley counties. Dallam County is located in the northwest corner of the Texas panhandle, bordering New mexico and Oklahoma and less than fifty miles from Colorado and Kansas. The number one priority was to take control of economic geography by

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improving local governmental efficiency. To do so required working together through joint planning meetings and avoiding "turf" battles.

Since that first public meeting in 1988, Dalhart has acquired a 2,000-bed prison facility that will open in January, 1995. The prison farm donated by local governmental entities, will raise enough pinto beans to feed the entire prison population of Texas. Also, Premium Standard Farms (PSF) of Texas is expanding a 300,000-head hog facility in Dallam County to process 7,000 hogs per day. PSF will perform all aspects of the process including marketing the packaged product. More than 1,000 new jobs will be created in the two-county area of less than 10,000 population. A downtown movie theater was restored to become a community dinner theater and another abandoned downtown building was restored to become a community youth center. An old downtown church was converted into a senior citizen center. The local silted-in lake has been designated a state waterfowl refuge.

Growing pains have created new problems such as housing and increased demands for new infrastructure. Dallam County is the Texas county furthest from the capital Austin. In fact, it is closer to five other state capitals than Austin. Thus, our economic geography includes the corners of five states that are learning to cooperate economically. It also creates tremendous opportunities for food stamp fraud. Along with our Texas pride comes a Texas prejudice against those north of the state line and those south of the border. This causes closed communities that are resistant to people moving in to fill the newly created jobs. These adversities can become stumbling blocks to economic development, or they can be sources of energy and movement to cooperate and form creative solutions.

In our 3,000-square-mile, two-county area with a population of 9,000, five school districts, four towns, two hospital districts, two water districts, five fire departments, three law enforcement agencies, and numerous duplicated services, each of these entities is represented in quarterly meetings held to discuss problems and joint solutions. Both county commissioners' courts meet together monthly. Annually, interested community leaders meet in a constructive forum to define problems and assign task groups to address them. If we cannot define what we want, we define what we do not want. Goals are set and key leadership positions are appointed. Although consolidation of various entities has been suggested, it is too emotional an issue. Working together is paramount.

In the 1990s the successful person has arrived. He wants to play golf and enjoy the American dream. His recreation is designed to keep him busy and out of trouble. He expects the low achiever to work more, to stay busy and out of trouble. Conversely, the low achiever thinks the government and the successful owe him a living and a high standard of recreation. To him this is the American dream. Welfare and greed continue to perpetuate these myths.

Rural America does not need to become a welfare state. Many rural communities are dying, but some are succeeding where others have failed. To one, diversity becomes a stimulus to organize. To the other, diversity suffocates economic development. To one, adversity becomes a source of energy to continue progress. To the other, adversity becomes an insurmountable hurdle.

Rural America must continue to provide food and fiber for our nation and, more specifically, the conservative, common-sense leaders our nation so desperately needs. America was settled by castaways who had nothing but a dream. Rural communities are the castaways of today and, while holding some 90 percent of the nation's natural resources, they can still realize the true American dream if they organize around the diversity of their economic geography.

DIVERSITY OF RURAL PLACES—IDAHO

George Enneking
Idaho County, Idaho

Idaho County, Idaho (population 14,000), is a very large rural area containing 5.5 million acres (8,600 square miles). Of these, 4.5 million (84.8 percent) are public lands. All or parts of six national forests and the Idaho half of the Hells Canyon National Recreation Area are located in the county. Idaho County also contains more than 400 miles of free-flowing rivers: the Salmon, Clearwater, Lochsa, Selway and Snake. There are approximately three million acres of wilderness within the county: Gospel Hump, Frank Church, Selway-Bitterroot and Hells Canyon.

Settlement within the county started in the 1800s with discovery of gold in 1860. By the late 1800s and early 1900s through the Homestead Act, the majority of private property was settled, along with the Nez Perce Indian Reservation after the Indian Allotment Act of 1893.

There are ten small communities, the largest being the county seat Grangeville with 3,500 population.

Small communities were established at about eight-mile intervals due to method of travel and religious and ethnic background. These communities continue to exist today, but mostly as bedroom communities, now due to improved roads and travel, the result of the consolidation of schools. Roads needed to be improved and snow removed to accommodate school buses. However, schools in some remote communities remain.

The economy of the county is sustained by timber, agriculture and recreation. Timber and lumber products are facing the greatest threat at the present time. Forest plans that are driven by the Fish and Wildlife Agencies, Endangered Species Act (ESA), National Marine Fisheries Service, and special interest groups have greatly reduced the amount of timber available for harvest. The ESA has the greatest impact on Forest Service activity. At present, timber harvest within the county is almost nonexistent. The county's share of national forest timber receipts obtained through the 25 percent fund amounts to approximately $4 million a year. In Idaho, 70 percent of that money goes for road maintenance and 30 percent for schools. Timber sales have fallen 80 percent because of federal regulation which will place a tremendous burden on property taxes.

The loss of timber and mill jobs means loss of jobs and businesses

in our communities. Unemployed people are unable to own homes or pay taxes needed to sustain our infrastructure.

Agriculture remains stable at the present time. Soils, rainfall and climate within the county are very conducive to cereal grain production. However, regulations regarding herbicides, pesticides and fertilizers are becoming concerns for farmers. Water quality issues for the ESA, if allowed to continue at the present rate, will have a tremendous impact on agricultural uses also.

Cattle and sheep ranching are also important economic contributors. The sheep industry is disappearing because of high costs of public land policies and no effective predator control. Most of these operations have been replaced with cattle. A larger percentage of the cattle operations depend on public grazing permits. Federal regulations regarding riparian areas, stream fencing and proposed increased grazing fees will affect these ranches and, in some cases, eliminate them completely. This, in turn, will affect the assessed value of these properties because the value of deeded land is dependent on lease permits. Consequently, this will affect the county tax base.

Tourism and recreation are becoming important to the economy. Numerous outfitting businesses have started up to accommodate area fishing, hunting and recreation. However, even though it is most welcome, this industry will in no way offset the loss of timber-related activity. Studies by McKetta and Associates on the Wallowa-Whitman National Forest show that recreation would have to increase twenty-eight times to equal timber losses and that does not account for the seasonality of recreation employment (Robison and Freitag).

In short, federal rules and regulations affect all phases of county economic activity and local government, especially in public-land-dependent counties.

Possible Solutions

Federal and State Level

- Federal agencies must take into account the social and economic impacts on local communities and local government.
- The Endangered Species Act must be amended to consider human aspects as well as animals and plants, and all actions must be economically viable.
- Laws need to be made by Congress, not by agencies through the rule-making process.
- Higher Payment In Lieu of Taxes (PILT) payments must be provided to compensate for lost revenue from changed land use rules.

- Local governments must be allowed to have a say in their own destiny. Government needs to be of the people, by the people and for the people which means local participation in decisions affecting the local area.

Local Level

- Diversify our economies.
- Find new ways to make value-added products.
- Take advantage of the information super highway.
- Attract super highway dependent businesses.
- Work with recreation businesses to attract tourism dollars.
- Collaborate with state and federal agencies to make sure local government has a voice in decisions affecting local economies.
- Encourage collaboration between timber and recreation, which are tied directly to public lands, and federal agencies.
- Collaborate with academic institutions so they become cognizant of communities' and local government problems.

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